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**Summary Results of the  
1982 NACUBO  
Comparative Performance Study  
and  
Investment Questionnaire**

## Typical Portfolio of Reporting Institutions—1982

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| Annual return for year ended June 30, 1982                               | —0.93%    |
| Annual return over prior three years                                     | 8.31%     |
| Annual return over prior five years                                      | 7.70%     |
| Annual return over prior ten years                                       | 5.21%     |
| Asset composition as of June 30, 1982                                    |           |
| Stocks                                                                   | 52.4%     |
| Bonds                                                                    | 28.0%     |
| Cash equivalents                                                         | 13.8%     |
| Real estate                                                              | 2.7%      |
| Miscellaneous                                                            | 3.1%      |
| Portfolio beta coefficient—based on prior ten years' data                | 0.61      |
| Stock turnover during prior year                                         | 28.0%     |
| Bond turnover during prior year                                          | 19.6%     |
| Median endowment principal per FTE student (independent institutions)    | \$13,900  |
| Median endowment principal per faculty member (independent institutions) | \$170,000 |

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NACUBO  
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*Summary Results of the 1982 NACUBO  
Comparative Performance Study  
and Investment Questionnaire*

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## Preface

This summary report contains information on the investments of college and university endowment funds.

The NACUBO Comparative Performance Study (CPS) has been prepared annually since 1971. It initially provided participating institutions with comparative performance data on their investment pools; in recent years, the CPS has been expanded to include a detailed investment questionnaire, which covers other pertinent information relating to endowment funds and their management. Each year, considerable information is published in the *detailed* CPS report, which includes a variety of data of interest to participating institutions. This *summary* CPS report is designed for those who are interested in and concerned about endowment funds, but who prefer a condensed summary of findings.

Each participating institution has been provided with one copy of the detailed CPS report. Information in that report, coded for confidentiality, can be referred to when making comparisons to the larger endowment data base. Copies of the detailed CPS report are available from NACUBO, One Dupont Circle, Washington, D.C. 20036, at \$30 each for NACUBO members and \$50 each for nonmembers; all orders must be prepaid.

Members of the Investments Committee hereby convey their thanks to the many persons who made this study possible. These include business officers who voluntarily supplied data and answered the questionnaire; Bruce M. Dresner, of Dartmouth College, who served as survey coordinator in producing the detailed report; and Dartmouth College, which provided the use of its computer.

Investments Committee 1982-83

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# Investment Performance

NACUBO compiles data on endowment funds each year. A detailed investment questionnaire is sent in early fall to all endowed institutions of higher education that are known to be interested in the CPS. Timing of the questionnaire is based on a June 30 fiscal year-end, and responses are requested by the end of the calendar year in order to allow institutions to use information prepared as part of their fiscal year-end financial reporting. The ability of NACUBO to report in a timely fashion in the Comparative Performance Study is largely determined by the responsiveness of the partici-

pants in returning completed questionnaires.

In the 1982 study, 194 institutions participated and supplied the market value of their endowments. These institutions had endowment and life income funds of approximately \$17.5 billion. The total for all U.S. college and university endowment funds was \$23.5 billion, according to the most recent (1981) HEGIS data (one year's difference between NACUBO and HEGIS data). A list of participating institutions, ranked by order of endowment size, is provided in table 1.

**Table 1**  
**Endowment and Life Income Fund Assets**  
**Ranked by Endowment Market Value at June 30, 1982**  
(000 omitted)

| <u>Institution</u>                      | <u>Life Income Funds</u> | <u>Endowment Funds</u> |
|-----------------------------------------|--------------------------|------------------------|
| 1 Harvard University                    | \$ 40,111                | \$ 1,711,310           |
| 2 The University of Texas System        | 3,778                    | 1,626,210 (A)          |
| 3 Princeton University                  | 6,655                    | 885,772                |
| 4 Columbia University                   | 4,898                    | 772,562                |
| 5 Yale University                       | 6,200                    | 740,600                |
| 6 Stanford University                   | 89,703                   | 680,621 (A)            |
| 7 Massachusetts Institute of Technology | 9,587                    | 466,977                |
| 8 University of Chicago                 | 11,000                   | 394,200                |
| 9 Rice University                       | 10,364                   | 333,487                |
| 10 Northwestern University              | 15,599                   | 322,286 (A)            |
| 11 Cornell University                   | 23,384                   | 317,592                |
| 12 New York University                  | 1,730                    | 308,500 (A)            |
| 13 Washington University                | 6,039                    | 302,200                |
| 14 Rockefeller University               | 325                      | 240,563                |
| 15 Dartmouth College                    | 19,297                   | 230,071                |
| 16 Johns Hopkins University             | 4,718                    | 223,994                |
| 17 University of Pennsylvania           | 8,154                    | 218,250                |
| 18 University of Notre Dame             | 3,611                    | 203,767                |
| 19 California Institute of Technology   | 26,260                   | 192,426 (S)            |
| 20 Vanderbilt University                | 25,418                   | 183,889                |
| 21 University of Southern California    | 21,546                   | 182,925                |
| 22 University of Virginia               | 272                      | 154,228                |
| 23 Duke University                      | 7,244                    | 151,381                |
| 24 McGill University                    | 0                        | 147,700 (M)            |
| 25 Case Western Reserve University      | 10,016                   | 141,222                |
| 26 Wellesley College                    | 9,030                    | 126,224                |
| 27 Smith College                        | 0                        | 125,150                |
| 28 Carnegie-Mellon University           | 5,553                    | 124,176                |
| 29 Wesleyan College                     | 749                      | 121,964                |
| 30 Brown University                     | 5,786                    | 121,041                |
| 31 University of Delaware               | 620                      | 119,168                |

| <u>Institution</u>                              | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|-------------------------------------------------|------------------------------|----------------------------|
| 32 University of Michigan                       | \$ 5,977                     | \$ 115,309                 |
| 33 Southern Methodist University                | 0                            | 110,368 (M)                |
| 34 University of Cincinnati                     | 4,154                        | 103,421                    |
| 35 Baylor University                            | 14,549                       | 101,639 (M)                |
| 36 Vassar College                               | 8,887                        | 98,370                     |
| 37 University of Pittsburgh                     | 286                          | 98,262                     |
| 38 Oberlin College                              | 0                            | 95,924                     |
| 39 Loyola University                            | 191                          | 95,059                     |
| 40 Amherst College                              | 3,031                        | 94,412                     |
| 41 Rensselaer Polytechnic Institute             | 4,145                        | 94,191                     |
| 42 Ohio State University                        | 793                          | 94,165                     |
| 43 Berea College                                | 2,183                        | 91,161                     |
| 44 Wake Forest University                       | 545                          | 89,151                     |
| 45 University of Richmond                       | 485                          | 86,768                     |
| 46 Grinnell College                             | 3,120                        | 83,220                     |
| 47 Georgetown University                        | 1,459                        | 76,479                     |
| 48 Pomona College                               | 34,790                       | 72,765                     |
| 49 Brandeis University                          | 4,443                        | 71,931                     |
| 50 Lehigh University                            | 4,948                        | 70,905                     |
| 51 Tulane University                            | 6,343                        | 67,679                     |
| 52 Middlebury College                           | 1,720                        | 66,383                     |
| 53 Lafayette College                            | 2,357                        | 65,142                     |
| 54 Thomas Jefferson University                  | 567                          | 60,149                     |
| 55 Carleton College                             | 2,607                        | 60,035                     |
| 56 State University of New York                 | 26                           | 59,758 (Mr)                |
| 57 Rochester Institute of Technology            | 1,066                        | 58,622                     |
| 58 Mount Holyoke College                        | 3,027                        | 58,382                     |
| 59 Syracuse University                          | 8,304                        | 56,012                     |
| 60 Saint Louis University                       | 1,096                        | 55,572                     |
| 61 Boston University                            | 1,537                        | 55,064                     |
| 62 University of Miami                          | 5,824                        | 51,818 (M)                 |
| 63 Rutgers, The State University of New Jersey  | 0                            | 49,404                     |
| 64 Occidental College                           | 9,491                        | 49,226                     |
| 65 Bryn Mawr College                            | 0                            | 48,977 (M)                 |
| 66 University of Wisconsin System               | 0                            | 47,040                     |
| 67 Earlham College                              | 570                          | 46,299                     |
| 68 Baylor College of Medicine                   | 0                            | 44,491                     |
| 69 Trinity College (Connecticut)                | 670                          | 44,373                     |
| 70 Academy of the New Church                    | 0                            | 44,186                     |
| 71 Cooper Union                                 | 154                          | 43,890                     |
| 72 Bucknell University                          | 845                          | 42,994                     |
| 73 Worcester Polytechnic Institute              | 955                          | 42,694                     |
| 74 University of Missouri                       | 1,172                        | 42,108                     |
| 75 Kansas University Endowment Association      | 3,642                        | 41,873                     |
| 76 Colgate University                           | 7,856                        | 41,415 (M)                 |
| 77 University of North Carolina (Chapel Hill)   | 646                          | 41,377                     |
| 78 Hamilton College                             | 1,876                        | 39,544                     |
| 79 Southwestern University                      | 176                          | 37,853                     |
| 80 Southwestern at Memphis                      | 2,310                        | 37,409                     |
| 81 Radcliffe College                            | 1,018                        | 37,220                     |
| 82 Hampton Institute                            | 0                            | 36,031                     |
| 83 Haverford College                            | 917                          | 35,773                     |
| 84 Colorado College                             | 0                            | 34,720                     |
| 85 Agnes Scott College                          | 0                            | 34,627                     |
| 86 Willamette University                        | 1,643                        | 34,118 (M)                 |
| 87 Drew University                              | 0                            | 33,860                     |
| 88 University of Santa Clara                    | 3,288                        | 32,168                     |
| 89 University of Houston System                 | 0                            | 31,952 (A)                 |
| 90 Whitman College                              | 9,726                        | 31,598                     |
| 91 Philadelphia College of Pharmacy and Science | 0                            | 30,826                     |
| 92 Claremont McKenna College                    | 11,284                       | 30,317                     |

| <u>Institution</u>                                          | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|-------------------------------------------------------------|------------------------------|----------------------------|
| 93 University of Alabama System                             | \$ 0                         | \$ 29,120 (S)              |
| 94 Colby College                                            | 2,040                        | 29,104                     |
| 95 Davidson College                                         | 400                          | 28,906                     |
| 96 University of Vermont                                    | 270                          | 27,644                     |
| 97 Columbia University Teachers College                     | 227                          | 26,309 (A)                 |
| 98 Lawrence University                                      | 0                            | 26,150                     |
| 99 Denison University                                       | 3,477                        | 25,567                     |
| 100 University of Denver                                    | 2,507                        | 25,351                     |
| 101 Ohio University                                         | 0                            | 25,155                     |
| 102 University of Tennessee (Knoxville)                     | 9,638                        | 24,616                     |
| 103 Simmons College                                         | 0                            | 24,448                     |
| 104 Berry College                                           | 34                           | 24,012                     |
| 105 College of Wooster                                      | 0                            | 23,912                     |
| 106 Howard University                                       | 0                            | 23,059                     |
| 107 Spelman College                                         | 0                            | 22,721                     |
| 108 Bates College                                           | 1,215                        | 22,200                     |
| 109 George Washington University                            | 0                            | 21,187                     |
| 110 Marquette University                                    | 61                           | 21,031                     |
| 111 Rhode Island School of Design                           | 56                           | 20,670                     |
| 112 University of Utah                                      | 466                          | 20,404                     |
| 113 Ohio Wesleyan University                                | 1,799                        | 20,363                     |
| 114 Sweet Briar College                                     | 0                            | 19,932                     |
| 115 University of Maryland                                  | 0                            | 19,501                     |
| 116 Pennsylvania State University                           | 0                            | 18,848                     |
| 117 Cornell College                                         | 0                            | 18,665                     |
| 118 Auburn University                                       | 0                            | 18,511 (S)                 |
| 119 Saint Mary's College (Indiana)                          | 0                            | 18,357                     |
| 120 Mercer University                                       | 316                          | 18,208                     |
| 121 North Carolina State University                         | 0                            | 17,957                     |
| 122 Hendrix College                                         | 1,488                        | 17,879 (J)                 |
| 123 Dickinson College                                       | 1,252                        | 17,855                     |
| 124 University of Puget Sound                               | 1,713                        | 17,815 (A)                 |
| 125 Furman University                                       | 2,152                        | 17,711 (M)                 |
| 126 Birmingham Southern College                             | 0                            | 17,615                     |
| 127 Knox College                                            | 503                          | 17,573                     |
| 128 University of Tulsa                                     | 81                           | 17,495 (M)                 |
| 129 University of Arizona                                   | 0                            | 16,986                     |
| 130 Franklin & Marshall College                             | 2,752                        | 16,825                     |
| 131 Endowment Association of College of<br>William and Mary | 274                          | 16,634                     |
| 132 Wheaton College                                         | 484                          | 16,381                     |
| 133 Michigan State University                               | 72                           | 16,305                     |
| 134 Pratt Institute                                         | 0                            | 16,130 (A)                 |
| 135 Alma College                                            | 145                          | 15,771                     |
| 136 Reed College                                            | 2,339                        | 15,220                     |
| 137 Wittenberg University                                   | 5,356                        | 15,199                     |
| 138 American University of Beirut                           | 14                           | 15,183                     |
| 139 Clark University                                        | 1,534                        | 15,128                     |
| 140 Oregon State Board of Higher Education                  | 0                            | 14,901                     |
| 141 Baldwin-Wallace College                                 | 820                          | 14,750                     |
| 142 Kalamazoo College                                       | 1,041                        | 14,579                     |
| 143 Indiana University                                      | 991                          | 14,076                     |
| 144 University of Nevada System                             | 517                          | 13,746                     |
| 145 Wentworth Institute of Technology                       | 0                            | 13,695                     |
| 146 Connecticut College                                     | 0                            | 13,130 (M)                 |
| 147 Allegheny College                                       | 539                          | 12,495                     |
| 148 Temple University                                       | 0                            | 12,187                     |
| 149 Drake University                                        | 168                          | 11,523 (M)                 |
| 150 University of Maine                                     | 0                            | 11,307                     |
| 151 University of Tennessee (Chattanooga)                   | 0                            | 11,279                     |
| 152 University of Dayton                                    | 0                            | 11,132                     |

| <u>Institution</u>                               | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|--------------------------------------------------|------------------------------|----------------------------|
| 153 Norwich University                           | \$ 119                       | \$ 10,941                  |
| 154 Washburn College                             | 0                            | 10,560 (D)                 |
| 155 Clarkson College                             | 346                          | 10,475                     |
| 156 University of Iowa Foundation                | 3,377                        | 10,246                     |
| 157 Muhlenberg College                           | 0                            | 10,199                     |
| 158 St. Norbert College                          | 0                            | 9,698                      |
| 159 Bryant College of Business Administration    | 0                            | 9,280 (J)                  |
| 160 Wells College                                | 182                          | 8,943                      |
| 161 Babson College                               | 173                          | 8,468                      |
| 162 Skidmore College                             | 849                          | 8,094                      |
| 163 University of Arkansas (Fayetteville)        | 244                          | 7,933                      |
| 164 Alfred University                            | 118                          | 7,905                      |
| 165 Doane College                                | 354                          | 7,820                      |
| 166 Ohio Northern University                     | 0                            | 7,646 (A)                  |
| 167 College of William and Mary                  | 0                            | 7,608                      |
| 168 Rollins College                              | 244                          | 7,505 (M)                  |
| 169 Hope College                                 | 3,186                        | 7,460                      |
| 170 Moravian College                             | 148                          | 6,869                      |
| 171 University of Scranton                       | 0                            | 6,411 (M)                  |
| 172 Rockhurst College                            | 143                          | 6,392                      |
| 173 University of Nebraska                       | 0                            | 6,366                      |
| 174 University of Akron                          | 416                          | 5,956                      |
| 175 University of Evansville                     | 65                           | 5,864                      |
| 176 Washington State University                  | 47                           | 5,787                      |
| 177 Otterbein College                            | 307                          | 5,065                      |
| 178 Medical College of Pennsylvania              | 292                          | 4,601                      |
| 179 Kenyon College                               | 475                          | 4,318                      |
| 180 Russell Sage College                         | 1,604                        | 3,840                      |
| 181 Chapman College                              | 633                          | 3,554 (M)                  |
| 182 Canisius College                             | 94                           | 3,482                      |
| 183 Philadelphia College of Textiles and Science | 0                            | 3,478                      |
| 184 Western Michigan University                  | 867                          | 2,680                      |
| 185 Trinity College (D.C.)                       | 100                          | 2,635                      |
| 186 Arizona State University                     | 456                          | 2,352                      |
| 187 University of Massachusetts                  | 0                            | 2,238                      |
| 188 University of Tampa                          | 71                           | 2,222                      |
| 189 Monmouth College                             | 0                            | 2,218                      |
| 190 Newberry College                             | 0                            | 2,124                      |
| 191 Eastern Michigan University                  | 44                           | 1,881                      |
| 192 University of Connecticut                    | 0                            | 1,717                      |
| 193 University of Mississippi                    | 0                            | 1,713                      |
| 194 Ocean County College                         | 0                            | 738                        |
| <b>TOTAL</b>                                     | <b>\$626,041</b>             | <b>\$16,892,635</b>        |

Note: (A) = Figures are as of August 31, 1982  
 (D) = Figures are as of December 31, 1982  
 (J) = Figures are as of July 31, 1982  
 (M) = Figures are as of May 31, 1982  
 (Mr) = Figures are as of March 31, 1982  
 (S) = Figures are as of September 30, 1982

### Summary of Performance of Endowment Funds

The purpose of the NACUBO Comparative Performance Study is to aid administrators in evaluating their investment pool's performance. It is believed that measuring comparative performance among pools with similar charac-

teristics, objectives, and risk levels can add an important, useful dimension in reviewing the investment results achieved with respect to meeting performance goals.

- For the year ended June 30, 1982, the 218 college and university pools participating in



this study had an average rate of return of -0.9%. This rate of return exceeds the -1.8% expected total return earned by a composite of the S&P 500 Index, the Lehman Brothers-Kuhn Loeb Bond Index, and the average treasury bill rate using the same asset composition as the average investment pool (52.4% in equities, 28.0% in long-term bonds, 13.8% in cash and equivalents, 2.7% in real estate, and 3.1% in other assets).

- The study also shows that for the three-year period ended June 30, 1982, the average rate of return of the college and university pools of 8.3% exceeded the composite market index of 6.0%. And, for the five-year period ended June 30, 1982, the average return for the investment pools of 7.7% was higher than that earned by the composite index, which was 5.7%.

- In terms of investment objectives, those pools with a total rate of return objective underperformed those with balanced and income objectives. The opposite was true for the three- and five-year periods ended June 30, 1982. The total rate of return pools, on average, were 61% invested in equities over the past five years while the balanced pools were only 50% invested in equities.
- The study reveals that, on average, the larger pools (over \$50 million) underperformed the middle pools (\$10-\$50 million), which underperformed the smallest pools during the past year, though the opposite was true for the three-, five-, and ten-year periods measured. For the last five years the groups had average equity positions of 59%, 55%, and 47% for the largest, middle, and smallest pools, respectively.

**Table 2**  
**Average Performance by Period**

|                                        | Period Ended June 30, 1982 |                |               |              |
|----------------------------------------|----------------------------|----------------|---------------|--------------|
|                                        | One<br>Year                | Three<br>Years | Five<br>Years | Ten<br>Years |
| All investment pools measured          | -0.93%                     | 8.31%          | 7.70%         | 5.21%        |
| By investment objective                |                            |                |               |              |
| Total return pools                     | -2.17                      | 9.29           | 8.62          | 5.07         |
| Balanced or income pools               | -0.10                      | 7.62           | 7.07          | 5.31         |
| By size                                |                            |                |               |              |
| Over \$50 million                      | -1.63                      | 9.05           | 8.46          | 5.54         |
| \$10 to \$50 million                   | -1.20                      | 8.49           | 7.92          | 5.18         |
| Under \$10 million                     | 0.28                       | 7.10           | 6.41          | 4.83         |
| Comparative indexes                    |                            |                |               |              |
| Dow Jones Industrial Average           | -11.70                     | 4.88           | 3.45          | 3.70         |
| S&P 500 Index                          | -11.76                     | 7.68           | 7.19          | 4.79         |
| Salomon Brothers Bond Index            | 7.43                       | -3.85          | -1.23         | 2.76         |
| Lehman Brothers-Kuhn Loeb Bond Index   | 9.04                       | -1.18          | 0.64          | n/a          |
| Other benchmarks                       |                            |                |               |              |
| The Common Fund for Equity Investments | -13.25                     | 11.31          | 12.72         | 5.35         |
| The Common Fund for Bond Investments   | 10.98                      | 0.10           | 2.30          | n/a          |
| Inflation benchmarks                   |                            |                |               |              |
| Consumer price index                   | 7.08                       | 10.25          | 9.68          | 8.51         |
| Higher education price index           | 9.92                       | 9.88           | 8.81          | 7.80         |

- Those investment pools managed externally during the year ended June 30, 1982, performed about two percentage points poorer than those pools managed internally. During the years ended June 30, 1981 and 1980, investment pools managed externally performed, on average, about two percentage points than those managed internally. In 1979, results were about equal, and for each

of the two previous years, the internally managed pools outperformed those managed externally.

- In fiscal 1982, investment pools with higher-than-average bond turnover rates underperformed, on average, those pools having lower turnover rates. Pools with the highest equity turnover performed better than those pools with the lowest turnover.

- Investment pools underperformed inflation as measured by the Consumer Price Index (CPI) and the Higher Education Price Index (HEPI) for the one-, three-, five-, and ten-year periods ended June 30, 1982.

Because endowment funds are invested on a long-term basis, it is important to consider investment returns beyond just one year. In Table 2, information is provided on the performance of endowment funds over a series of different time periods. The appendix provides a detailed listing of the performance of all participating institutions, with funds coded for confidentiality.

Although investment performance figures are important and meaningful, this information can be both misinterpreted and overemphasized. Modern investment theory suggests that risk and return are related, and that the amount of return obtained in an investment portfolio is directly influenced by the degree of risk taken. This means that while one institution might achieve a higher (or lower) return than another, this return typically results from a combination of actions, including the allocation of investments among different types of assets, the degree of risk taken, the emphasis on different types of assets within each investment category (e.g., high-yield stocks vs. growth stocks, high-quality vs. low-quality bonds, etc.), and the selection of particular stocks, bonds, and other investments.

While one year is too short a period from which to draw any significant conclusions regarding performance, for the year ended June 30, 1982, 96% of the 218 pools in the CPS outperformed the Dow Jones Industrial Average

(the 194 institutions provided data on a total of 218 separate pools). This widely followed benchmark should not be the sole measure used to compare the performance of the average investment pool. A better measure, but still not completely representative for comparative purposes, is the S&P 500 Index. Ninety-six percent of the 218 pools also outperformed the S&P 500 in 1981-82, which was a period of declining stock prices. This is not surprising, since most pools maintain a balanced investment mix, and are not totally invested in stocks. Virtually all of the endowment investment pools underperformed both the Salomon Brothers Bond Index and the Lehman Brothers-Kuhn Loeb Bond Index. This too is not surprising, as the large stock component of funds probably hurt performance. For those few pools totally invested in either common stocks or long-term bonds, a direct comparison to the S&P 500 Index or either bond index, respectively, is more valid.

What should be of interest and concern to trustees and those administrators responsible for an investment pool is the return achieved from a blend of market indexes that mimics that of their own pool. In the case of the average pool, this means the return achieved as a result of the investment of its 52% stock component, 28% bond component, 14% cash component, 3% real estate component, and 3% miscellaneous assets component. On this basis, the one-year return of -0.93% for all pools appears favorable compared with the return of -1.78%, which might be expected on the asset components of the pool shown in Table 3.

**Table 3**  
**Estimated Asset Component Return of All Investment Pools for the**  
**One-Year Period Ended June 30, 1982**

| <u>Asset Component</u> | <u>Index</u>          | <u>Fiscal 1981-82<br/>Total<br/>Return Percentage</u> | <u>Average<br/>Investment<br/>Pool Asset<br/>Component</u> | <u>Expected<br/>Total<br/>Return</u> |
|------------------------|-----------------------|-------------------------------------------------------|------------------------------------------------------------|--------------------------------------|
| Stocks                 | S&P 500               | -11.76%                                               | 52.4%                                                      | -6.16%                               |
| Bonds                  | Lehman-Kuhn Loeb      | 9.04                                                  | 28.0                                                       | 2.53                                 |
| Cash                   | Average Treasury Bill | 13.41                                                 | 13.8                                                       | 1.85                                 |
| Real Estate            | n/a                   | 0                                                     | 2.7                                                        | 0                                    |
| Miscellaneous          | n/a                   | 0                                                     | 3.1                                                        | 0                                    |
| <b>Total</b>           |                       |                                                       | <b>100.0%</b>                                              | <b>-1.78%</b>                        |



### Asset Composition

The decision as to what should be the asset composition (or amount invested in stocks, bonds, etc.) of the endowment fund is typically a policy action dictated by each institution's governing board or investment committee. Sometimes this decision is determined in conjunction with the advice of an institution's portfolio manager. Table 4 shows the asset composition of reporting investment pools as of June 30, 1982. The average pool in the 1982 CPS has about 48% of its assets invested in stocks. Some endowment funds are almost

totally invested in stocks, others hold a balance on investment assets, and a few have heavy weightings of bonds or real estate. Both the expected return and volatility of any given investment portfolio will be a function of its asset composition, and each institution will typically establish a permissible allocation of assets as a function of its own need for income and growth of principal. As an example, a need for predictable, stable income will require of investments a certain percentage in bonds, although investment in the stock market might produce a higher total return.

**Table 4**  
**Asset Composition of Investment Pools by Objective and Size**  
**At June 30, 1982**

|               | By Investment Objective |              |          | By Size           |                      |                    |
|---------------|-------------------------|--------------|----------|-------------------|----------------------|--------------------|
|               | All Pools               | Total Return | Balanced | Over \$50 Million | \$10 to \$50 Million | Under \$10 Million |
| Stocks        | 48.1%                   | 53.2%        | 44.4%    | 50.3%             | 48.7%                | 44.2%              |
| Bonds         | 30.6                    | 25.0         | 34.5     | 28.8              | 28.4                 | 36.5               |
| Cash          | 15.4                    | 15.9         | 15.1     | 13.7              | 15.8                 | 16.6               |
| Real Estate   | 2.7                     | 1.9          | 3.3      | 2.8               | 3.4                  | 1.5                |
| Miscellaneous | 3.2                     | 4.0          | 2.7      | 4.4               | 3.7                  | 1.2                |
| Total         | 100.0%                  | 100.0%       | 100.0%   | 100.0%            | 100.0%               | 100.0%             |

NACUBO compares the asset composition of investment pools from year to year and monitors changes in concentration. The net change in asset composition results from a combination of two factors: the general change in stock, bond, and other asset prices and a shift in investments. Using the change in market indexes, an expected change in the value of assets can be computed. When actual compositions are reported for the following year, a comparison can then be made between the expected change and what actually occurred, with net differences computed that can be assumed to have occurred due to policy decisions, such as a change in investment strategy. For the year ended June 30, 1982, endowment funds in general again exhibited a shift in emphasis, increasing bonds 3.0% while decreasing stocks 4.4%, as shown in Table 5.

A characteristic related to the composition of the portfolio is diversification of the securi-

ties held within each asset category. Some investment portfolios are quite diversified and reflect stock holdings that mirror the market in general. Other investment pools ordinarily concentrate investments into particular industries or segments of the marketplace. Most investment pools are well diversified in their stock and bond holdings: the typical endowment portfolio holds about 50 different common stock names, with even more names included as the size of the portfolio increases; about 25 different bond names are included in the typical endowment portfolio.

### Risk Measurement and Return

According to modern investment theory, risk and return are directly related. There are several different techniques to measure risk. One technique assumed to be a proxy for risk is to compare the fluctuation of the portfolio to that

**Table 5**  
**Change in Asset Composition: 1974 through 1982**  
**(Percentage Change — Year Ended June 30)**

|               | 1974  | 1975  | 1976  | 1977  | 1978  | 1979  | 1980  | 1981  | 1982  | Total  |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Stocks        | -4.0% | -1.2% | -2.2% | -1.1% | -4.8% | -3.3% | -2.3% | -2.0% | -4.4% | -25.3% |
| Bonds         | 1.3   | 3.9   | 4.2   | 0     | 0.6   | 1.3   | 2.6   | 2.4   | 3.0   | 19.3   |
| Cash          | 3.0   | -2.9  | -1.7  | 1.0   | -4.2  | 1.9   | -0.6  | -0.7  | 1.8   | 6.0    |
| Real Estate   | n/a   | n/a   | n/a   | n/a   | n/a   | n/a   | 0.4   | 0.2   | -0.3  | 0.3    |
| Miscellaneous | -0.3  | 0.2   | -0.3  | 0.1   | 0     | 0.1   | -0.1  | 0.1   | -0.1  | -0.3   |

of the stock market in general, typically using the S&P 500 Index as the market. This comparison generates a measure called the "beta coefficient," which indicates the percentage fluctuation that can be expected and therefore predicted, based on the relative performance of the market. A beta of 1.00 means that the portfolio is just as volatile as the market in general and should be expected to move in unison with the market, if the assets in the portfolio are well diversified. If the market goes up 10%, then the pool should be expected to go up 10%. A beta of 1.10 means that the portfolio is 10% more volatile than the market, while a beta of 0.90 indicates that the portfolio is 10% less volatile, and therefore should not perform as well as the market in a period of rising prices, nor lose as much when market prices decline. In other words, if a specific portfolio is more volatile and therefore is taking more risk, it is expected that this portfolio should have a return that is greater than the market in general. A higher than average return may not mean that the portfolio has achieved an extraordinary success, but rather it might be simply the return that should be expected for the degree of risk taken. If a specific portfolio has an incremental return greater than what might be predicted by the beta coefficient, the excess return can be explained as the value added by management. Beta coefficients have been computed for investment pools in the 1982 CPS. The average beta for all pools is .61 for the ten-year period ended June 30, 1982.

In Table 6, beta coefficients are summarized for investment pools in the study. College and university endowment funds appear to be invested for less volatility and risk than the market as a whole. One would expect their performance to be below that of the stock market as a whole in a period of a rising mar-

ket, as was the case in fiscal 1975, 1976, 1979, 1980, and 1981, and above the stock market in a period of a declining market, as was the case in fiscal 1977, 1978, and 1982.

**Table 6**  
**Beta Coefficients**

|                              | Ten Years<br>Ended<br>June 30, 1982 |
|------------------------------|-------------------------------------|
| All investment pools         | .61                                 |
| By investment objective      |                                     |
| Total return pools           | .69                                 |
| Balanced pools               | .56                                 |
| By size                      |                                     |
| Over \$50 million            | .68                                 |
| \$10 to \$50 million         | .62                                 |
| Under \$10 million           | .52                                 |
| Comparative indexes          |                                     |
| Dow Jones Industrial Average | .84                                 |
| Salomon Brothers Bond Index  | -.04                                |
| S&P 500 Index                | 1.00                                |

#### **Stock and Bond Turnover**

Investment managers buy and sell securities. Some observers of the marketplace believe that very actively traded portfolios, with high turnover and therefore high transaction costs, will produce a lower total return in the long run. NACUBO has been monitoring turnover for the last eight years; for 1982, the stock turnover of the typical endowment fund was 28.0% of the total value of stock invested, the highest rate (but the same as last year) since NACUBO began gathering this data in 1974-75. On average, bond turnover was about 19.6%, with the larger pools having higher turnover. Data accumulated to date do not indicate any correlation, positive or negative, between turnover and performance for endowment funds. It is observed that, in general, endowment funds have lower turnover than other investment pools.

## Endowment Characteristics

As part of the ongoing CPS, NACUBO has endeavored to build a data base of information on endowment funds and endowment wealth.

One of the most important subjects identified by administrators and others interested in colleges and universities is endowment growth and endowment adjusted for inflation or "real" endowment growth. The decreased size of endowment funds in 1982 appears to be the result of the sharp decline in equity securities and more moderate depreciation in the bond security markets, despite new gifts added to

endowment. A crude approximation of endowment growth can be made for the nine-year period ending June 30, 1982. This is portrayed in Table 7 as the NACUBO Endowment Wealth Index ("NEWI"). The calculation is based on information received from prior NACUBO questionnaires and indicates that, as a group, NEWI assets at June 30, 1982, have increased about 40% since June 30, 1973. However, in real terms—when inflation is taken into account—endowment funds have actually declined about 37% based on the CPI and 32%

**Table 7**  
**Appreciation Comparison Of Indexes and**  
**Endowment Wealth ("NEWI") Before and After Inflation**

|                                        | 6/30/73 | 6/30/74 | 6/30/75 | 6/30/76  | 6/30/77 | 6/30/78 | 6/30/79 | 6/30/80 | 6/30/81 | 6/30/82 | Nine-Year<br>Percent-<br>age<br>Change |
|----------------------------------------|---------|---------|---------|----------|---------|---------|---------|---------|---------|---------|----------------------------------------|
| Dow Jones Industrial Average           | 891.71  | 802.41  | 878.99  | 1,002.78 | 916.30  | 818.95  | 841.98  | 667.92  | 976.88  | 811.93  | 8.95%                                  |
| S&P 500 Index                          | 104.26  | 86.00   | 95.19   | 104.28   | 100.48  | 95.53   | 102.91  | 114.24  | 131.24  | 109.61  | 5.13                                   |
| Salomon Brothers High-Grade Bond Index | 93.70   | 80.53   | 85.26   | 86.82    | 92.43   | 84.64   | 83.15   | 73.23   | 56.43   | 53.33   | -43.08                                 |
| NACUBO Endowment Wealth Index ("NEWI") | 100.00  | 83.30   | 91.05   | 98.52    | 102.36  | 103.79  | 112.09  | 122.85  | 139.31  | 137.36  | 37.36                                  |
| Real NEWI based on CPI*                | 100.00  | 76.49   | 75.19   | 75.96    | 74.60   | 70.82   | 68.94   | 66.11   | 68.46   | 63.04   | -36.96                                 |
| Real NEWI based on HEPI**              | 100.00  | 77.48   | 78.28   | 79.46    | 77.52   | 73.67   | 73.80   | 73.60   | 76.22   | 68.37   | -31.63                                 |

\* Readers may note that figures for CPI have been changed retroactively to reflect new calculation bases.

\*\* HEPI (Higher Education Price Index) figures from D. Kent Halstead.

based on the HEPI. To help put this into perspective, Table 7 compares the S&P 500, the Dow Jones Industrial Average, the Salomon Brothers High-Grade Bond Index, and endowment funds both before and after inflation. The Consumer Price Index (CPI) and the Higher Education Price Index (HEPI) were used to adjust for inflation.

Table 7 shows that the rebound from the low 1974 equity markets through June 1981 reversed itself sharply in fiscal 1982. Even with

the strong support from gift additions, however, educational institutions are far from whole. That is, \$100 of endowment at June 30, 1973, would have the purchasing power at June 30, 1982, of only \$63.04 (based on the CPI) and \$68.37 (based on the HEPI). Stated another way, endowment would have to rise an additional 60% (or 45%) to maintain 1973 purchasing power in 1982. This devastating loss in purchasing power is being felt throughout the college and university world and helps

explain some of the more recent fiscal problems being experienced by many endowed institutions, especially those that rely more heavily on their endowment to meet current operating expenses.

For independent institutions, questions were asked regarding endowment support for faculty and full-time equivalent (FTE) students. Table 8 summarizes these data.

Because each college and university and its alumni are unique, it is often difficult to draw analogies relating to gift-giving among institutions. It is hoped that data gathered over a long period may be useful in identifying trends. Data on gifts to endowment are included in the detailed CPS.

**Table 8**  
**All Independent Institutions —**  
**Endowment Support**

|                                                  | <u>Average</u><br><u>Institution</u> | <u>Median of All</u><br><u>Participants</u> |
|--------------------------------------------------|--------------------------------------|---------------------------------------------|
| Endowment principal per FTE student              | \$ 21,460                            | \$ 13,900                                   |
| Endowment principal per faculty member           | 235,150                              | 170,000                                     |
| Endowment income per FTE student                 | 1,300                                | 850                                         |
| Endowment income per faculty member              | 14,825                               | 9,750                                       |
| Gifts to endowment as percentage of market value | n/a                                  | 4.4%                                        |

Appendix: Average Annual Total Return Performance  
of All Pools for the Period Ended June 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 1  | C69          | 0        | D    | 15.69 %          | 69  | 9.29 %           | 92  | 7.66 %           |     | N/A %             |
| 2  | C59          | 29       | B    | 15.22            | 75  | 9.17             |     | N/A              |     | N/A               |
| 3  | E7           | 48       | F    | 14.64            | 42  | 10.83            | 67  | 8.44             | 143 | 2.31              |
| 4  | C6           | 14       | D    | 13.16            | 36  | 11.06            | 57  | 8.69             | 64  | 5.16              |
| 5  | C7           | 8        | A    | 12.90            | 23  | 11.85            | 51  | 9.10             | 122 | 3.61              |
| 6  | C11          | 72       | C    | 12.86            | 2   | 17.72            |     | N/A              |     | N/A               |
| 7  | C60          | 57       | B    | 12.38            | 33  | 11.15            | 29  | 10.47            | 19  | 7.50              |
| 8  | C85          | 31       | D    | 11.99            | 89  | 8.60             | 65  | 8.47             | 43  | 5.72              |
|    | COM-FDBD     | 0        | A    | 10.98            |     | 0.10             |     | 2.30             |     | N/A               |
| 9  | C30          | 43       | E    | 10.70            | 38  | 10.96            | 62  | 8.49             | 47  | 5.60              |
| 10 | C74          | 12       | D    | 10.38            | 57  | 10.06            | 20  | 11.18            | 8   | 9.27              |
| 11 | E87          | 5        | F    | 9.79             | 205 | 2.59             | 192 | 2.74             | 103 | 4.12              |
| 12 | C81          | 72       | C    | 9.75             | 28  | 11.64            |     | N/A              |     | N/A               |
| 13 | E58          | 43       | D    | 9.60             | 140 | 7.09             | 145 | 6.03             | 33  | 6.15              |
| 14 | C12          | 88       | F    | 9.51             | 94  | 8.46             | 143 | 6.09             |     | N/A               |
|    | LEH-KUHN     |          |      | 9.04             |     | -1.18            |     | 0.64             |     | N/A               |
| 15 | E106         | 29       | E    | 8.77             |     | N/A              |     | N/A              |     | N/A               |
| 16 | E16          | 57       | D    | 8.54             | 4   | 16.89            | 9   | 12.80            | 18  | 7.55              |
| 17 | C67          | 27       | E    | 8.42             | 116 | 7.74             | 114 | 7.08             | 94  | 4.52              |
| 18 | E49          | 52       | C    | 8.16             | 49  | 10.32            | 24  | 10.85            | 88  | 4.61              |
| 19 | E68          | 56       | C    | 8.02             | 65  | 9.59             | 63  | 8.48             | 101 | 4.20              |
| 20 | C90          | 14       | C    | 7.98             |     | N/A              |     | N/A              |     | N/A               |
| 21 | C37          | 24       | F    | 7.77             | 188 | 4.58             | 181 | 4.25             |     | N/A               |
|    | SALOMON      |          |      | 7.43             |     | -3.85            |     | -1.23            |     | 2.76              |
| 22 | C99          | 72       | B    | 7.32             | 26  | 11.71            | 3   | 14.32            | 1   | 21.63             |
| 23 | C65          | 51       | C    | 7.16             | 13  | 13.80            | 23  | 10.96            | 10  | 8.45              |
| 24 | E111         | 31       | E    | 6.96             |     | N/A              |     | N/A              |     | N/A               |
| 25 | E82          | 38       | F    | 6.43             | 113 | 7.79             | 121 | 6.72             | 46  | 5.66              |
| 26 | E109         | 24       | F    | 5.88             | 157 | 6.35             | 165 | 5.12             | 125 | 3.52              |
| 27 | E80          | 25       | C    | 5.57             | 63  | 9.61             | 33  | 10.14            | 52  | 5.49              |
| 28 | C34          | 57       | C    | 5.54             | 50  | 10.31            | 41  | 9.69             | 123 | 3.59              |
| 29 | C86          | 38       | D    | 5.31             | 82  | 8.79             | 78  | 8.22             | 15  | 7.66              |
| 30 | E110         | 39       | A    | 5.16             | 108 | 8.02             | 74  | 8.32             |     | N/A               |
| 31 | C22          | 41       | A    | 5.14             | 37  | 10.99            | 45  | 9.51             | 60  | 5.31              |
| 32 | C70          | 55       | D    | 5.11             | 58  | 10.04            | 82  | 8.06             | 31  | 6.19              |
| 33 | C38          | 33       | C    | 5.04             | 87  | 8.61             | 53  | 9.06             | 12  | 8.04              |
| 34 | C10          | 52       | F    | 4.98             | 203 | 2.95             | 174 | 4.58             |     | N/A               |
| 35 | C83          | 33       | D    | 4.85             | 107 | 8.04             | 77  | 8.24             | 96  | 4.38              |
| 36 | C89          | 24       | D    | 4.70             | 143 | 7.04             | 126 | 6.63             |     | N/A               |
| 37 | C61          | 39       | A    | 4.63             | 181 | 5.10             |     | N/A              |     | N/A               |
| 38 | C35          | 51       | C    | 4.54             | 10  | 13.95            | 4   | 13.85            | 4   | 10.65             |
| 39 | C88          | 32       | D    | 4.43             | 66  | 9.53             | 79  | 8.14             | 50  | 5.54              |
| 40 | E83          | 50       | F    | 4.32             | 156 | 6.44             | 151 | 5.70             | 119 | 3.67              |



## APPENDIX

## ALL ENDOWMENT POOLS (CONT.)

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 41 | C92          | 23       | E    | 4.30 %           | 134 | 7.29 %           | 111 | 7.16 %           | 110 | 3.90 %            |
| 42 | E60          | 51       | D    | 4.27             | 51  | 10.26            | 99  | 7.48             | 90  | 4.59              |
| 43 | C9           | 51       | A    | 3.81             | 95  | 8.44             | 110 | 7.18             | 53  | 5.49              |
| 44 | E84          | 35       | F    | 3.80             | 104 | 8.15             | 89  | 7.85             |     | N/A               |
| 45 | E35          | 59       | C    | 3.80             | 97  | 8.36             | 103 | 7.40             | 133 | 3.12              |
| 46 | E113         | 65       | F    | 3.62             |     | N/A              |     | N/A              |     | N/A               |
| 47 | C64          | 20       | E    | 3.44             | 158 | 6.33             | 160 | 5.39             | 55  | 5.40              |
| 48 | E28          | 17       | A    | 3.28             | 183 | 4.99             | 135 | 6.33             | 106 | 4.06              |
| 49 | E51          | 47       | C    | 3.10             | 47  | 10.44            | 25  | 10.69            | 24  | 6.84              |
| 50 | E65          | 53       | C    | 3.04             | 39  | 10.94            | 55  | 8.99             | 54  | 5.45              |
| 51 | C50          | 48       | F    | 3.02             | 121 | 7.50             | 117 | 6.87             | 78  | 4.77              |
| 52 | E50          | 29       | C    | 2.87             | 9   | 14.05            | 18  | 11.48            | 137 | 2.77              |
| 53 | E22          | 38       | D    | 2.82             | 198 | 3.53             | 187 | 3.79             | 83  | 4.70              |
| 54 | C20          | 55       | B    | 2.79             | 84  | 8.68             | 83  | 8.05             | 41  | 5.73              |
| 55 | E20          | 46       | C    | 2.68             | 17  | 13.18            | 37  | 9.99             | 22  | 7.39              |
| 56 | E88          | 14       | F    | 2.68             | 210 | -1.36            | 195 | 0.53             | 121 | 3.66              |
| 57 | E23          | 44       | F    | 2.59             | 202 | 3.14             | 183 | 4.09             | 146 | 2.09              |
| 58 | C62          | 70       | D    | 2.58             | 207 | 2.29             | 189 | 3.46             |     | N/A               |
| 59 | C54          | 37       | A    | 2.56             | 44  | 10.74            | 5   | 13.70            | 11  | 8.15              |
| 60 | E115         | 66       | E    | 2.53             |     | N/A              |     | N/A              |     | N/A               |
| 61 | C19          | 49       | D    | 2.46             | 190 | 4.53             | 178 | 4.34             |     | N/A               |
| 62 | E93          | 57       | B    | 2.35             | 16  | 13.19            | 27  | 10.57            |     | N/A               |
| 63 | E64          | 57       | E    | 2.30             | 48  | 10.39            | 39  | 9.80             | 144 | 2.29              |
| 64 | C21          | 39       | C    | 2.23             | 85  | 8.67             | 149 | 5.76             | 138 | 2.70              |
| 65 | C46          | 33       | D    | 2.14             | 106 | 8.05             | 122 | 6.72             | 81  | 4.72              |
| 66 | C44          | 57       | F    | 2.12             | 14  | 13.29            | 10  | 12.66            | 44  | 5.69              |
| 67 | C13          | 61       | D    | 1.99             | 7   | 14.66            | 2   | 14.59            | 2   | 14.68             |
| 68 | C36          | 41       | E    | 1.94             | 175 | 5.51             | 163 | 5.19             |     | N/A               |
| 69 | E9           | 32       | E    | 1.83             | 195 | 4.03             | 171 | 4.82             |     | N/A               |
| 70 | E41          | 40       | E    | 1.77             | 189 | 4.54             | 184 | 4.07             | 142 | 2.34              |
| 71 | E96          | 49       | B    | 1.72             | 71  | 9.24             | 88  | 7.85             |     | N/A               |
| 72 | E59          | 44       | D    | 1.65             | 83  | 8.78             | 102 | 7.41             | 84  | 4.68              |
| 73 | C95          | 43       | E    | 1.40             | 78  | 9.04             | 87  | 7.89             | 56  | 5.38              |
| 74 | C18          | 40       | D    | 1.38             | 32  | 11.21            | 35  | 10.04            | 7   | 9.53              |
| 75 | C15          | 54       | A    | 1.36             | 24  | 11.80            | 31  | 10.20            | 74  | 4.92              |
| 76 | C101         | 50       | D    | 1.29             |     | N/A              |     | N/A              |     | N/A               |
| 77 | C75          | 56       | E    | 1.25             | 132 | 7.33             | 128 | 6.61             | 95  | 4.46              |
| 78 | E27          | 54       | B    | 1.10             | 40  | 10.89            | 60  | 8.54             | 89  | 4.59              |
| 79 | C72          | 48       | A    | 1.09             | 125 | 7.45             | 109 | 7.22             | 13  | 7.90              |
| 80 | C58          | 79       | D    | 1.07             | 81  | 8.81             | 90  | 7.82             | 127 | 3.45              |
| 81 | C55          | 77       | A    | 1.05             | 43  | 10.81            | 43  | 9.59             | 14  | 7.76              |
| 82 | E98          | 61       | F    | 0.98             | 46  | 10.52            | 50  | 9.10             | 36  | 5.95              |
| 83 | C17          | 69       | C    | 0.93             | 130 | 7.38             | 154 | 5.58             | 70  | 5.04              |
| 84 | E8           | 54       | A    | 0.91             | 25  | 11.74            | 38  | 9.94             | 51  | 5.50              |
| 85 | C73          | 50       | F    | 0.70             | 159 | 6.32             | 162 | 5.33             |     | N/A               |



## ALL ENDOWMENT POOLS (CONT.)

| CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 86 C43       | 67       | F    | 0.67 %           | 6   | 16.03 %          | 19  | 11.48 %          |     | N/A %             |
| 87 E100      | 59       | B    | 0.59             | 147 | 6.87             | 140 | 6.13             |     | N/A               |
| 88 C5        | 30       | D    | 0.56             | 168 | 5.88             | 137 | 6.25             | 58  | 5.34              |
| 89 E29       | 63       | A    | 0.53             | 60  | 9.95             | 69  | 8.41             | 104 | 4.08              |
| 90 E70       | 63       | D    | 0.52             | 76  | 9.14             | 66  | 8.46             |     | N/A               |
| 91 C1        | 67       | D    | 0.31             | 120 | 7.61             | 129 | 6.56             |     | N/A               |
| 92 E32       | 47       | C    | 0.29             | 141 | 7.08             | 142 | 6.10             | 79  | 4.76              |
| 93 E48       | 52       | E    | 0.18             | 119 | 7.68             | 46  | 9.36             |     | N/A               |
| 94 E78       | 44       | D    | 0.18             | 185 | 4.95             | 173 | 4.63             | 85  | 4.68              |
| 95 E114      | 33       | E    | 0.14             | 99  | 8.29             | 176 | 4.42             | 77  | 4.81              |
| 96 E74       | 59       | D    | 0.05             | 161 | 6.15             |     | N/A              |     | N/A               |
| 97 C49       | 51       | D    | 0.01             | 196 | 3.98             | 180 | 4.26             | 145 | 2.23              |
| 98 C94       | 17       | D    | -0.06            | 105 | 8.11             | 48  | 9.25             |     | N/A               |
| 99 E1        | 55       | A    | -0.08            | 34  | 11.12            | 47  | 9.29             | 124 | 3.56              |
| 100 C103     | 49       | D    | -0.15            | 124 | 7.46             |     | N/A              |     | N/A               |
| 101 E13      | 35       | D    | -0.30            | 201 | 3.18             | 188 | 3.61             | 92  | 4.57              |
| 102 E61      | 64       | D    | -0.33            | 96  | 8.40             | 125 | 6.66             |     | N/A               |
| 103 C80      | 60       | F    | -0.40            | 111 | 7.85             | 138 | 6.23             | 136 | 3.46              |
| 104 E90      | 51       | A    | -0.42            | 178 | 5.47             | 161 | 5.37             |     | N/A               |
| 105 E31      | 44       | A    | -0.47            | 165 | 5.94             | 150 | 5.70             |     | N/A               |
| 106 E18      | 68       | A    | -0.51            | 127 | 7.43             | 112 | 7.13             | 107 | 4.05              |
| 107 E57      | 55       | A    | -0.57            | 93  | 8.47             | 94  | 7.56             | 37  | 5.81              |
| 108 C33      | 48       | F    | -0.60            | 204 | 2.59             | 191 | 2.85             |     | N/A               |
| 109 C91      | 51       | F    | -0.65            | 200 | 3.36             | 185 | 4.06             | 132 | 3.30              |
| 110 C100     | 39       | D    | -0.79            | 135 | 7.27             | 123 | 6.69             |     | N/A               |
| 111 E73      | 50       | A    | -0.79            | 133 | 7.29             | 124 | 6.68             | 76  | 4.84              |
| 112 C57      | 46       | C    | -0.81            | 53  | 10.20            | 85  | 7.99             | 147 | 1.81              |
| 113 C3       | 57       | B    | -0.86            | 184 | 4.97             | 179 | 4.29             | 105 | 4.06              |
| 114 C41      | 66       | D    | -0.87            | 163 | 6.07             | 107 | 7.33             | 30  | 6.27              |
| 115 C47      | 45       | D    | -0.95            | 199 | 3.48             | 190 | 3.33             | 111 | 3.88              |
| 116 E89      | 37       | B    | -1.01            | 5   | 16.19            | 17  | 11.57            |     | N/A               |
| 117 E104     | 60       | F    | -1.01            | 109 | 8.00             |     | N/A              |     | N/A               |
| 118 C56      | 59       | A    | -1.14            | 86  | 8.63             | 61  | 8.50             | 59  | 5.32              |
| 119 E39      | 52       | D    | -1.20            | 176 | 5.51             | 159 | 5.39             | 128 | 3.41              |
| 120 E72      | 58       | B    | -1.22            | 100 | 8.25             | 95  | 7.55             | 48  | 5.58              |
| 121 E47      | 60       | B    | -1.22            | 142 | 7.06             |     | N/A              |     | N/A               |
| 122 E44      | 50       | F    | -1.24            | 148 | 6.86             | 157 | 5.47             | 118 | 3.71              |
| 123 E66      | 55       | C    | -1.24            | 110 | 8.00             | 100 | 7.42             |     | N/A               |
| 124 E2       | 62       | D    | -1.24            | 164 | 6.04             | 115 | 7.03             | 112 | 3.77              |
| 125 C29      | 57       | A    | -1.30            | 70  | 9.29             | 97  | 7.52             | 91  | 4.59              |
| 126 E6       | 51       | B    | -1.31            | 54  | 10.15            | 81  | 8.07             | 34  | 6.01              |
| 127 E103     | 61       | E    | -1.32            | 90  | 8.53             |     | N/A              |     | N/A               |
| 128 E42      | 54       | E    | -1.32            | 64  | 9.61             | 84  | 7.99             | 42  | 5.73              |
| 129 C16      | 57       | C    | -1.38            | 166 | 5.94             | 164 | 5.17             | 129 | 3.32              |

## APPENDIX

## ALL ENDOWMENT POOLS (CONT.)

| #   | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|-----|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 130 | C8           | 57       | B    | -1.46%           | 68  | 9.42%            | 86  | 7.94%            |     | N/A%              |
| 131 | E85          | 44       | C    | -1.48            | 137 | 7.17             | 116 | 6.94             |     | N/A               |
| 132 | C96          | 44       | A    | -1.52            | 187 | 4.71             | 120 | 6.77             |     | N/A               |
| 133 | C39          | 45       | D    | -1.52            | 171 | 5.74             | 152 | 5.62             | 148 | 1.62              |
| 134 | C79          | 57       | D    | -1.62            | 191 | 4.44             | 175 | 4.44             | 115 | 3.74              |
| 135 | E37          | 48       | B    | -1.72            | 55  | 10.14            | 54  | 9.01             | 26  | 6.65              |
| 136 | C23          | 56       | E    | -1.75            | 1   | 20.03            | 6   | 13.51            | 35  | 5.97              |
| 137 | E95          | 50       | C    | -2.01            | 151 | 6.70             | 141 | 6.11             | 131 | 3.30              |
| 138 | C68          | 60       | A    | -2.13            | 179 | 5.18             |     | N/A              |     | N/A               |
| 139 | E24          | 62       | D    | -2.27            | 153 | 6.59             | 132 | 6.49             | 38  | 5.78              |
| 140 | E91          | 53       | F    | -2.31            | 131 | 7.33             | 131 | 6.52             | 49  | 5.55              |
| 141 | C97          | 44       | E    | -2.40            | 118 | 7.69             | 194 | 1.12             | 109 | 3.91              |
| 142 | E67          | 65       | C    | -2.44            | 162 | 6.10             | 147 | 5.92             | 65  | 5.15              |
| 143 | E99          | 53       | D    | -2.45            | 21  | 12.47            | 11  | 12.45            |     | N/A               |
| 144 | C32          | 13       | E    | -2.66            | 170 | 5.82             | 21  | 11.06            | 3   | 11.06             |
| 145 | E63          | 59       | A    | -3.00            | 91  | 8.52             | 64  | 8.48             | 114 | 3.76              |
| 146 | E69          | 64       | B    | -3.00            | 182 | 5.01             | 156 | 5.54             | 150 | 0.68              |
| 147 | E92          | 61       | F    | -3.20            | 172 | 5.73             | 168 | 5.01             | 28  | 6.51              |
| 148 | C52          | 51       | F    | -3.24            | 174 | 5.54             | 146 | 5.98             | 66  | 5.07              |
| 149 | C71          | 27       | D    | -3.39            | 155 | 6.48             | 104 | 7.37             |     | N/A               |
| 150 | C78          | 42       | D    | -3.45            | 197 | 3.96             | 177 | 4.37             | 149 | 1.30              |
| 151 | E55          | 63       | C    | -3.48            | 150 | 6.73             |     | N/A              |     | N/A               |
| 152 | E17          | 60       | B    | -3.65            | 180 | 5.15             | 169 | 4.99             | 63  | 5.18              |
| 153 | C14          | 58       | C    | -3.74            | 8   | 14.54            | 14  | 12.31            |     | N/A               |
| 154 | C53          | 48       | F    | -3.78            | 144 | 7.02             | 101 | 7.41             |     | N/A               |
| 155 | E53          | 67       | B    | -3.78            | 73  | 9.22             | 59  | 8.62             | 23  | 6.96              |
| 156 | C45          | 62       | D    | -3.83            | 122 | 7.49             |     | N/A              |     | N/A               |
| 157 | C76          | 52       | D    | -4.01            | 67  | 9.51             | 106 | 7.35             | 97  | 4.32              |
| 158 | E62          | 68       | E    | -4.08            | 102 | 8.24             | 91  | 7.67             | 67  | 5.06              |
| 159 | E14          | 66       | D    | -4.33            | 177 | 5.51             | 153 | 5.60             | 73  | 4.94              |
| 160 | C2           | 50       | B    | -4.38            | 128 | 7.42             | 113 | 7.10             | 71  | 5.01              |
| 161 | E10          | 67       | D    | -4.40            | 152 | 6.69             | 136 | 6.31             | 140 | 2.48              |
| 162 | E36          | 60       | A    | -4.47            | 31  | 11.28            | 36  | 10.01            | 57  | 5.34              |
| 163 | C31          | 59       | B    | -4.51            | 45  | 10.65            | 119 | 6.78             |     | N/A               |
| 164 | E105         | 65       | F    | -4.63            | 59  | 10.00            |     | N/A              |     | N/A               |
| 165 | E81          | 47       | D    | -4.72            | 79  | 8.87             | 130 | 6.54             | 136 | 2.99              |
| 166 | C82          | 70       | B    | -4.91            | 80  | 8.81             | 70  | 8.39             | 134 | 3.09              |
| 167 | E77          | 55       | F    | -4.91            | 192 | 4.18             | 167 | 5.01             | 113 | 3.76              |
| 168 | E71          | 57       | C    | -5.13            | 169 | 5.84             | 155 | 5.58             | 93  | 4.55              |
| 169 | E79          | 59       | D    | -5.26            | 112 | 7.81             | 93  | 7.57             | 86  | 4.63              |
| 170 | C42          | 70       | B    | -5.50            | 72  | 9.24             | 80  | 8.11             | 120 | 3.67              |
| 171 | E40          | 67       | A    | -5.57            | 41  | 10.87            | 68  | 8.42             | 69  | 5.06              |
| 172 | C28          | 76       | C    | -5.62            | 30  | 11.29            | 22  | 11.06            |     | N/A               |
| 173 | E45          | 56       | A    | -5.69            | 61  | 9.72             | 52  | 9.09             | 27  | 6.63              |

## ALL ENDOWMENT POOLS (CONT.)

## APPENDIX

| CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 174 E108     | 59       | C    | -5.70 %          | 173 | 5.59 %           | 170 | 4.92 %           | 75  | 4.89 %            |
| 175 E30      | 62       | A    | -5.93            | 20  | 12.89            | 49  | 9.12             | 80  | 4.76              |
| 176 E11      | 17       | A    | -6.00            | 35  | 11.12            | 32  | 10.16            | 40  | 5.78              |
| 177 C66      | 59       | D    | -6.28            | 12  | 13.82            | 13  | 11.68            |     | N/A               |
| 178 E97      | 64       | F    | -6.29            | 194 | 4.12             | 166 | 5.06             | 29  | 6.43              |
| 179 E4       | 67       | D    | -6.59            | 167 | 5.89             | 127 | 6.63             | 135 | 3.02              |
| 180 E86      | 64       | D    | -6.86            | 154 | 6.51             |     | N/A              |     | N/A               |
| 181 E21      | 65       | A    | -7.24            | 98  | 8.33             | 73  | 8.32             | 108 | 3.95              |
| 182 C98      | 62       | D    | -7.28            | 129 | 7.38             | 42  | 9.60             | 6   | 9.97              |
| 183 E107     | 66       | F    | -7.37            | 193 | 4.17             | 172 | 4.76             | 72  | 4.95              |
| 184 E76      | 65       | F    | -7.37            | 149 | 6.76             | 144 | 6.08             | 98  | 4.26              |
| 185 C84      | 29       | C    | -7.64            | 208 | -0.02            | 193 | 1.57             | 139 | 2.51              |
| 186 E38      | 66       | A    | -7.70            | 103 | 8.18             | 98  | 7.50             | 32  | 6.15              |
| 187 E46      | 80       | A    | -7.81            | 123 | 7.48             | 96  | 7.54             | 102 | 4.20              |
| 188 C87      | 53       | D    | -7.96            | 74  | 9.21             | 75  | 8.27             | 141 | 2.43              |
| 189 E33      | 75       | A    | -7.96            | 101 | 8.25             | 56  | 8.79             | 99  | 4.25              |
| 190 C4       | 81       | C    | -8.62            | 139 | 7.13             | 118 | 6.78             |     | N/A               |
| 191 C102     | 71       | D    | -8.68            | 136 | 7.20             |     | N/A              |     | N/A               |
| 192 E56      | 59       | B    | -8.80            | 146 | 6.92             | 134 | 6.38             | 117 | 3.72              |
| 193 C26      | 47       | E    | -8.81            |     | N/A              |     | N/A              |     | N/A               |
| 194 E12      | 59       | F    | -8.97            | 29  | 11.59            | 44  | 9.52             |     | N/A               |
| 195 C25      | 12       | A    | -9.03            | 92  | 8.52             | 71  | 8.38             | 20  | 7.46              |
| 196 E102     | 72       | D    | -9.65            | 3   | 17.37            | 1   | 17.35            | 9   | 9.23              |
| 197 C93      | 77       | C    | -9.82            | 88  | 8.60             | 72  | 8.34             | 17  | 7.56              |
| 198 E19      | 71       | B    | -9.91            | 62  | 9.66             | 30  | 10.46            | 61  | 5.27              |
| 199 C48      | 60       | B    | -10.02           | 56  | 10.12            | 26  | 10.66            |     | N/A               |
| 200 E3       | 68       | D    | -10.64           | 186 | 4.80             | 148 | 5.81             | 100 | 4.23              |
| 201 E101     | 73       | D    | -10.85           | 117 | 7.73             | 108 | 7.28             |     | N/A               |
| 202 E52      | 77       | D    | -10.95           | 138 | 7.13             | 139 | 6.18             | 116 | 3.74              |
| D-JONES      |          |      | -11.70           |     | 4.88             |     | 3.45             |     | 3.70              |
| SP500        |          |      | -11.76           |     | 7.68             |     | 7.19             |     | 4.79              |
| 203 E54      | 71       | C    | -11.85           | 18  | 13.01            | 7   | 13.24            | 45  | 5.66              |
| 204 E43      | 72       | C    | -11.89           | 115 | 7.74             | 40  | 9.74             | 16  | 7.63              |
| 205 C77      | 89       | A    | -12.40           | 114 | 7.78             | 76  | 8.26             | 21  | 7.46              |
| SP-IND       |          |      | -12.64           |     | 7.63             |     | 7.21             |     | 4.49              |
| COM-FDEQ     | 95       | A    | -13.25           |     | 11.31            |     | 12.72            |     | 5.35              |
| 206 E5       | 76       | B    | -13.28           | 19  | 13.01            | 13  | 12.37            | 68  | 5.06              |
| 207 E34      | 70       | A    | -13.35           | 27  | 11.70            | 28  | 10.50            | 87  | 4.61              |
| 208 C63      | 77       | C    | -13.49           | 22  | 11.91            | 12  | 12.39            | 62  | 5.24              |
| 209 E25      | 80       | D    | -13.52           | 15  | 13.25            | 15  | 12.09            | 39  | 5.78              |
| 210 C24      | 80       | D    | -13.79           | 145 | 6.93             | 105 | 7.36             |     | N/A               |
| 211 C27      | 79       | E    | -13.81           | 209 | -1.03            | 186 | 3.97             |     | N/A               |
| 212 E26      | 74       | D    | -14.05           | 77  | 9.12             | 34  | 10.08            | 82  | 4.71              |
| 213 E75      | 74       | C    | -14.53           | 126 | 7.44             | 133 | 6.46             | 25  | 6.69              |

## APPENDIX

## ALL ENDOWMENT POOLS (CONT.)

| #       | CODE<br>NAME | EQ<br>#* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 214     | C40          | 51       | E    | -14.61%          | 52  | 10.25%           | 58  | 8.65%            | 5   | 10.32%            |
| 215     | E112         | 72       | C    | -14.72           |     | N/A              |     | N/A              |     | N/A               |
| 216     | E94          | 73       | D    | -15.35           | 11  | 13.93            | 8   | 12.92            |     | N/A               |
| 217     | E15          | 49       | C    | -15.61           | 160 | 6.28             | 158 | 5.46             | 130 | 3.31              |
| 218     | C51          | 59       | F    | -16.53           | 206 | 2.30             | 182 | 4.15             |     | N/A               |
| AVERAGE |              | 218      |      | -0.93%           | 210 | 8.31%            | 195 | 7.70%            | 150 | 5.21%             |

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**Results of the  
1982 NACUBO  
Comparative Performance Study  
and  
Investment Questionnaire**

The NACUBO Investments Committee hereby conveys its thanks to the many persons who made this study possible. These include: the business officers who voluntarily supplied data and answered the questionnaire; Bruce Dresner, who serves so capably as survey coordinator; and Dartmouth College, which provides the use of its computer.

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RESULTS OF THE 1982 NACUBO  
COMPARATIVE PERFORMANCE STUDY  
AND  
INVESTMENT QUESTIONNAIRE

by

Bruce M. Dresner  
Survey Coordinator

Under the Direction of  
the NACUBO Investments Committee

NATIONAL ASSOCIATION OF COLLEGE AND UNIVERSITY BUSINESS OFFICERS  
One Dupont Circle, Suite 510  
Washington, D.C. 20036

## PREFACE

The purpose of the annual NACUBO Comparative Performance Study (CPS) is to aid administrators in evaluating the performance of their investment pools.

The CPS was begun in 1971 as an expansion of a survey conducted in prior years by Dartmouth College. Although the study originally gathered information only on performance, it now includes an investment questionnaire which provides additional pertinent information relating to endowment funds and their management.

The 1982 study contains two parts: Section I--comparative performance information and related investment performance statistics, and Section II--other endowment statistics.

Throughout the study all performance figures are computed using annual data supplied by participating institutions. The theory behind the methodology for the investment pool comparative performance computations is described in Appendix I. Performance calculations are explained in detail in Appendix II. Performance information received from investment services or produced internally may vary from results in this report if such figures are based on other than annual data or computed in a different manner. While it is believed the results can be viewed with considerable validity, a very deviant response or an exceptional outcome should be treated with caution.

Appendix III is a glossary of terms and definitions which participants were asked to keep in mind to permit consistency of responses and which the reader may find as a helpful reference.

The confidential nature of participant responses to investment performance questions has been maintained through use of code numbers. However, selected nonperformance data have been identified by institution in the belief that this information is most useful when so identified.

Inquiries pertaining to the content of this report or to the methodology for the investment pool comparative performance computations should be addressed to Bruce M. Dresner, NACUBO Survey Coordinator, P.O. Box 31, Hanover, New Hampshire 03755, (603) 646-2445. Additional copies of this report are available through the NACUBO office at \$30 per copy for members, \$50 for nonmembers. (Orders must be prepaid.) A Summary Comparative Performance Study is available at \$5 per copy (minimum order \$10).

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RESULTS OF THE 1982 NACUBO COMPARATIVE PERFORMANCE STUDY  
AND INVESTMENT QUESTIONNAIRE

SECTION I -- INVESTMENT PERFORMANCE

INTRODUCTION

Participants

The 1982 NACUBO Comparative Performance Study (CPS) contains information as of June 30, 1982, on 218 college and university investment pools.\* Institutions participating in the study have endowment and life income funds of approximately \$17.5 billion at market value. The total for all U.S. college and university endowment funds was about \$23.5 billion, according to the most recent (1981) HEGIS data (one year's difference between NACUBO and HEGIS data).

The institutions in the NACUBO survey are categorized by size as follows:

Table 1

Participating Institutions  
(in millions of dollars)

| <u>Endowment Size</u>  | <u>Number<br/>Reporting</u> | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> | <u>Total</u>    |
|------------------------|-----------------------------|------------------------------|----------------------------|-----------------|
| \$100 million and over | 37                          | \$443                        | \$12,472                   | \$12,915        |
| \$50 to \$100 million  | 26                          | 70                           | 1,905                      | 1,975           |
| \$10 to \$50 million   | 95                          | 101                          | 2,324                      | 2,425           |
| Under \$10 million     | 36                          | 8                            | 179                        | 187             |
| TOTAL                  | <u>194</u>                  | <u>\$622</u>                 | <u>\$16,880</u>            | <u>\$17,502</u> |

A list of participating institutions ranked by order of endowment size is provided as Table 3, page 3, of this report. As a further helpful reference, an alphabetical listing of institutions participating in the CPS is also provided as Exhibit I, page 73.

Exhibit II, page 75, contains a coded listing as of June 30, 1982, of characteristics of the pools.

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\*The terms "endowment" pool and "investment pool" are not synonymous. All of an institution's endowment funds may not be contained in its investment pool(s). Investment pools might include--besides true, quasi, and term endowment--other funds retained in the endowment and similar funds group, such as life income funds, loan funds, and temporarily invested plant funds.

### Investment Objectives

Of the 218 investment pools, 88 (40%) follow a total return investment philosophy, 117 (54%) follow a balanced investment philosophy, and 13 (6%) follow an income-oriented philosophy. These three objectives are defined as follows:

Total Return - Investment returns are sought from both market appreciation and dividends and interest; current income requirements generally do not dictate the kind of securities that may be held because primary emphasis is on long-term overall return.

Balanced - The pooled funds are invested in such a manner as to minimize investment risks without unduly sacrificing current income or the possibility for some long-term growth. This is usually done by investing a portion of the pool in fixed-income securities.

Income-Oriented - Investment policy is dictated by current income needs; market appreciation is never utilized for current operating purposes, and primary emphasis is on current maximization.

For performance comparison purposes the latter groups have been combined. Nine pools changed their investment objective during the year. Three of these changed from balanced to total return, three from total return to balanced, two from balanced to income, and one from income-oriented to total return.

### Size of Investment Pools

For performance comparison purposes the investment pools have been categorized by size as follows:

Table 2

#### Investment Pools by Size

| <u>Size of Pools</u> | <u>1974<br/>Number</u> | <u>1982<br/>Number</u> | <u>Approximate Value of<br/>Pools at June 30, 1982<br/>in Thousands</u> |
|----------------------|------------------------|------------------------|-------------------------------------------------------------------------|
| Over \$50 million    | 33                     | 61                     | \$12,458,359                                                            |
| \$10 to \$50 million | 43                     | 100                    | 2,453,233                                                               |
| Under \$10 million   | 71                     | 57                     | 257,292                                                                 |
| TOTAL                | 147                    | 218                    | \$15,168,884                                                            |

From 1974 to 1982, the size of the investment pools participating in the Comparative Performance Study has increased. In 1974, 49% of the pools in the study were under \$10 million, while in 1982 only 26% were in that category. Correspondingly, the \$10 million to \$50 million group increased from 29% to 46%, and the over \$50 million group increased from 22% to 28%.

### Pool Characteristics

In terms of characteristics, 171 of the pools were described as pooled endowment funds consisting principally of endowment and similar funds. Sixteen were described as combinations of more than one separately invested fund; 11 as pools consisting of only those assets over which management has discretion; 14 as separately invested funds which have been unitized to enable performance to be accurately measured; and 6 as pooled life income funds.

### Pool Composition

Of the 218 pools, 158 contained true and quasi-endowment funds, 29 contained only true endowment funds, and 3 contained only quasi-endowment funds. The 28 remaining pools included not only endowment funds but also investments of other fund groups.

### Validity of CPS Data

Because NACUBO is dealing with a wealth of data, errors in compiling results may occur. Numerous checks have been incorporated over the years to keep errors to a minimum. However, if the data supplied NACUBO (unit value and income-per-unit figures) are erroneous, the probability is that only very deviant figures will be spotted. Except for obviously erroneous and deviant figures, all data provided are treated as correct. Although each institution is responsible for the accuracy of its data, it is felt that a high degree of reliability can be placed on the raw data supplied. Unit values and income-per-unit figures for over 75% of the pools in the NACUBO CPS are contained in independently audited financial reports, and over 90% are reported in the institution's annual report.

Table 3

Endowment and Life Income Fund Assets  
Ranked by Endowment Market Value at June 30, 1982  
(000 omitted)

| <u>Institution</u>                      | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|-----------------------------------------|------------------------------|----------------------------|
| 1 Harvard University                    | \$40,111                     | \$1,711,310                |
| 2 The University of Texas System        | 3,778                        | 1,626,210 (A)              |
| 3 Princeton University                  | 6,655                        | 885,772                    |
| 4 Columbia University                   | 4,898                        | 772,562                    |
| 5 Yale University                       | 6,200                        | 740,600                    |
| 6 Stanford University                   | 89,703                       | 680,621 (A)                |
| 7 Massachusetts Institute of Technology | 9,587                        | 466,977                    |
| 8 University of Chicago                 | 11,000                       | 394,200                    |
| 9 Rice University                       | 10,364                       | 333,487                    |
| 10 Northwestern University              | 15,599                       | 322,286 (A)                |

| <u>Institution</u>                                | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|---------------------------------------------------|------------------------------|----------------------------|
| 11 Cornell University                             | 23,384                       | 317,592                    |
| 12 New York University                            | 1,730                        | 308,500 (A)                |
| 13 Washington University                          | 6,039                        | 302,200                    |
| 14 Rockefeller University                         | 325                          | 240,563                    |
| 15 Dartmouth College                              | 19,297                       | 230,071                    |
| 16 Johns Hopkins University                       | 4,718                        | 223,994                    |
| 17 University of Pennsylvania                     | 8,154                        | 218,250                    |
| 18 University of Notre Dame                       | 3,611                        | 203,767                    |
| 19 California Institute of Technology             | 26,260                       | 192,426 (S)                |
| 20 Vanderbilt University                          | 25,418                       | 183,889                    |
| 21 University of Southern California              | 21,546                       | 182,925                    |
| 22 University of Virginia                         | 272                          | 154,228                    |
| 23 Duke University                                | 7,244                        | 151,381                    |
| 24 McGill University                              | 0                            | 147,700 (M)                |
| 25 Case Western Reserve University                | 10,016                       | 141,222                    |
| 26 Wellesley College                              | 9,030                        | 126,224                    |
| 27 Smith College                                  | 0                            | 125,150                    |
| 28 Carnegie-Mellon University                     | 5,553                        | 124,176                    |
| 29 Wesleyan College                               | 749                          | 121,964                    |
| 30 Brown University                               | 5,786                        | 121,041                    |
| 31 University of Delaware                         | 620                          | 119,168                    |
| 32 University of Michigan                         | 5,977                        | 115,309                    |
| 33 Southern Methodist University                  | 0                            | 110,368 (M)                |
| 34 University of Cincinnati                       | 4,154                        | 103,421                    |
| 35 Baylor University                              | 14,549                       | 101,639 (M)                |
| 36 Vassar College                                 | 8,887                        | 98,370                     |
| 37 University of Pittsburgh                       | 286                          | 98,262                     |
| 38 Oberlin College                                | 0                            | 95,924                     |
| 39 Loyola University                              | 191                          | 95,059                     |
| 40 Amherst College                                | 3,031                        | 94,412                     |
| 41 Rensselaer Polytechnic Institute               | 4,145                        | 94,191                     |
| 42 Ohio State University                          | 793                          | 94,165                     |
| 43 Berea College                                  | 2,183                        | 91,161                     |
| 44 Wake Forest University                         | 545                          | 89,151                     |
| 45 University of Richmond                         | 485                          | 86,768                     |
| 46 Grinnell College                               | 3,120                        | 83,220                     |
| 47 Georgetown University                          | 1,459                        | 76,479                     |
| 48 Pomona College                                 | 34,790                       | 72,765                     |
| 49 Brandeis University                            | 4,443                        | 71,931                     |
| 50 Lehigh University                              | 4,948                        | 70,905                     |
| 51 Tulane University                              | 6,343                        | 67,679                     |
| 52 Middlebury College                             | 1,720                        | 66,383                     |
| 53 Lafayette College                              | 2,357                        | 65,142                     |
| 54 Thomas Jefferson University                    | 567                          | 60,149                     |
| 55 Carleton College                               | 2,607                        | 60,035                     |
| 56 State University of New York                   | 26                           | 59,758 (Mr)                |
| 57 Rochester Institute of Technology              | 1,066                        | 58,622                     |
| 58 Mount Holyoke College                          | 3,027                        | 58,382                     |
| 59 Syracuse University                            | 8,304                        | 56,012                     |
| 60 Saint Louis University                         | 1,096                        | 55,572                     |
| 61 Boston University                              | 1,537                        | 55,064                     |
| 62 University of Miami                            | 5,824                        | 51,818 (M)                 |
| 63 Rutgers, The State University of<br>New Jersey | 0                            | 49,404                     |
| 64 Occidental College                             | 9,491                        | 49,226                     |
| 65 Bryn Mawr College                              | 0                            | 48,977 (M)                 |

| Institution                                        | Life Income<br>Funds | Endowment<br>Funds |
|----------------------------------------------------|----------------------|--------------------|
| 66 University of Wisconsin System                  | 0                    | 47,040             |
| 67 Earlham College                                 | 570                  | 46,299             |
| 68 Baylor College of Medicine                      | 0                    | 44,491             |
| 69 Trinity College (Connecticut)                   | 670                  | 44,373             |
| 70 Academy of the New Church                       | 0                    | 44,186             |
| 71 Cooper Union                                    | 154                  | 43,890             |
| 72 Bucknell University                             | 845                  | 42,994             |
| 73 Worcester Polytechnic Institute                 | 955                  | 42,694             |
| 74 University of Missouri                          | 1,172                | 42,108             |
| 75 Kansas University Endowment Association         | 3,642                | 41,873             |
| 76 Colgate University                              | 7,856                | 41,415 (M)         |
| 77 University of North Carolina (Chapel Hill)      | 646                  | 41,377             |
| 78 Hamilton College                                | 1,876                | 39,544             |
| 79 Southwestern University                         | 176                  | 37,853             |
| 80 Southwestern at Memphis                         | 2,310                | 37,409             |
| 81 Radcliffe College                               | 1,018                | 37,220             |
| 82 Hampton Institute                               | 0                    | 36,031             |
| 83 Haverford College                               | 917                  | 35,773             |
| 84 Colorado College                                | 0                    | 34,720             |
| 85 Agnes Scott College                             | 0                    | 34,627             |
| 86 Willamette University                           | 1,643                | 34,118 (M)         |
| 87 Drew University                                 | 0                    | 33,860             |
| 88 University of Santa Clara                       | 3,288                | 32,168             |
| 89 University of Houston System                    | 0                    | 31,952 (A)         |
| 90 Whitman College                                 | 9,726                | 31,598             |
| 91 Philadelphia College of Pharmacy<br>and Science | 0                    | 30,826             |
| 92 Claremont McKenna College                       | 11,284               | 30,317             |
| 93 University of Alabama System                    | 0                    | 29,120 (S)         |
| 94 Colby College                                   | 2,040                | 29,104             |
| 95 Davidson College                                | 400                  | 28,906             |
| 96 University of Vermont                           | 270                  | 27,644             |
| 97 Columbia University Teachers College            | 227                  | 26,309 (A)         |
| 98 Lawrence University                             | 0                    | 26,150             |
| 99 Denison University                              | 3,477                | 25,567             |
| 100 University of Denver                           | 2,507                | 25,351             |
| 101 Ohio University                                | 0                    | 25,155             |
| 102 University of Tennessee (Knoxville)            | 9,638                | 24,616             |
| 103 Simmons College                                | 0                    | 24,448             |
| 104 Berry College                                  | 34                   | 24,012             |
| 105 College of Wooster                             | 0                    | 23,912             |
| 106 Howard University                              | 0                    | 23,059             |
| 107 Spelman College                                | 0                    | 22,721             |
| 108 Bates College                                  | 1,215                | 22,200             |
| 109 George Washington University                   | 0                    | 21,187             |
| 110 Marquette University                           | 61                   | 21,031             |
| 111 Rhode Island School of Design                  | 56                   | 20,670             |
| 112 University of Utah                             | 466                  | 20,404             |
| 113 Ohio Wesleyan University                       | 1,799                | 20,363             |
| 114 Sweet Briar College                            | 0                    | 19,932             |
| 115 University of Maryland                         | 0                    | 19,501             |
| 116 Pennsylvania State University                  | 0                    | 18,848             |
| 117 Cornell College                                | 0                    | 18,665             |



| <u>Institution</u>                                          | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|-------------------------------------------------------------|------------------------------|----------------------------|
| 118 Auburn University                                       | 0                            | 18,511 (S)                 |
| 119 Saint Mary's College (Indiana)                          | 0                            | 18,357                     |
| 120 Mercer University                                       | 316                          | 18,208                     |
| 121 North Carolina State University                         | 0                            | 17,957                     |
| 122 Hendrix College                                         | 1,488                        | 17,879 (J)                 |
| 123 Dickinson College                                       | 1,252                        | 17,855                     |
| 124 University of Puget Sound                               | 1,713                        | 17,815 (A)                 |
| 125 Furman University                                       | 2,152                        | 17,711 (M)                 |
| 126 Birmingham Southern College                             | 0                            | 17,615                     |
| 127 Knox College                                            | 503                          | 17,573                     |
| 128 University of Tulsa                                     | 81                           | 17,495 (M)                 |
| 129 University of Arizona                                   | 0                            | 16,986                     |
| 130 Franklin & Marshall College                             | 2,752                        | 16,825                     |
| 131 Endowment Association of College of<br>William and Mary | 274                          | 16,634                     |
| 132 Wheaton College                                         | 484                          | 16,381                     |
| 133 Michigan State University                               | 72                           | 16,305                     |
| 134 Pratt Institute                                         | 0                            | 16,130 (A)                 |
| 135 Alma College                                            | 145                          | 15,771                     |
| 136 Reed College                                            | 2,339                        | 15,220                     |
| 137 Wittenberg University                                   | 5,356                        | 15,199                     |
| 138 American University of Beirut                           | 14                           | 15,183                     |
| 139 Clark University                                        | 1,534                        | 15,128                     |
| 140 Oregon State Board of Higher Education                  | 0                            | 14,901                     |
| 141 Baldwin-Wallace College                                 | 820                          | 14,750                     |
| 142 Kalamazoo College                                       | 1,041                        | 14,579                     |
| 143 Indiana University                                      | 991                          | 14,076                     |
| 144 University of Nevada System                             | 517                          | 13,746                     |
| 145 Wentworth Institute of Technology                       | 0                            | 13,695                     |
| 146 Connecticut College                                     | 0                            | 13,130 (M)                 |
| 147 Allegheny College                                       | 539                          | 12,495                     |
| 148 Temple University                                       | 0                            | 12,187                     |
| 149 Drake University                                        | 168                          | 11,523 (M)                 |
| 150 University of Maine                                     | 0                            | 11,307                     |
| 151 University of Tennessee (Chattanooga)                   | 0                            | 11,279                     |
| 152 University of Dayton                                    | 0                            | 11,132                     |
| 153 Norwich University                                      | 119                          | 10,941                     |
| 154 Washburn College                                        | 0                            | 10,560 (D)                 |
| 155 Clarkson College                                        | 346                          | 10,475                     |
| 156 University of Iowa Foundation                           | 3,377                        | 10,246                     |
| 157 Muhlenberg College                                      | 0                            | 10,199                     |
| 158 St. Norbert College                                     | 0                            | 9,698                      |
| 159 Bryant College of Business Administration               | 0                            | 9,280 (J)                  |
| 160 Wells College                                           | 182                          | 8,943                      |
| 161 Babson College                                          | 173                          | 8,468                      |
| 162 Skidmore College                                        | 849                          | 8,094                      |
| 163 University of Arkansas (Fayetteville)                   | 244                          | 7,938                      |
| 164 Alfred University                                       | 118                          | 7,905                      |
| 165 Doane College                                           | 354                          | 7,820                      |
| 166 Ohio Northern University                                | 0                            | 7,646 (A)                  |
| 167 College of William and Mary                             | 0                            | 7,608                      |
| 168 Rollins College                                         | 244                          | 7,505 (M)                  |
| 169 Hope College                                            | 3,186                        | 7,460                      |



| <u>Institution</u> |                                                 | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|--------------------|-------------------------------------------------|------------------------------|----------------------------|
| 170                | Moravian College                                | 148                          | 6,869                      |
| 171                | University of Scranton                          | 0                            | 6,411 (M)                  |
| 172                | Rockhurst College                               | 143                          | 6,392                      |
| 173                | University of Nebraska                          | 0                            | 6,366                      |
| 174                | University of Akron                             | 416                          | 5,956                      |
| 175                | University of Evansville                        | 65                           | 5,864                      |
| 176                | Washington State University                     | 47                           | 5,787                      |
| 177                | Otterbein College                               | 307                          | 5,065                      |
| 178                | Medical College of Pennsylvania                 | 292                          | 4,601                      |
| 179                | Kenyon College                                  | 475                          | 4,318                      |
| 180                | Russell Sage College                            | 1,604                        | 3,840                      |
| 181                | Chapman College                                 | 633                          | 3,554 (M)                  |
| 182                | Canisius College                                | 94                           | 3,482                      |
| 183                | Philadelphia College of Textiles<br>and Science | 0                            | 3,478                      |
| 184                | Western Michigan University                     | 867                          | 2,680                      |
| 185                | Trinity College (D.C.)                          | 100                          | 2,635                      |
| 186                | Arizona State University                        | 456                          | 2,352                      |
| 187                | University of Massachusetts                     | 0                            | 2,238                      |
| 188                | University of Tampa                             | 71                           | 2,222                      |
| 189                | Monmouth College                                | 0                            | 2,218                      |
| 190                | Newberry College                                | 0                            | 2,124                      |
| 191                | Eastern Michigan University                     | 44                           | 1,881                      |
| 192                | University of Connecticut                       | 0                            | 1,717                      |
| 193                | University of Mississippi                       | 0                            | 1,713                      |
| 194                | Ocean County College                            | 0                            | 738                        |
| TOTAL              |                                                 | \$626,041                    | \$16,892,635               |

NOTE: (A) Figures are as of August 31, 1982  
 (D) Figures are as of December 31, 1982  
 (J) Figures are as of July 31, 1982  
 (M) Figures are as of May 31, 1982  
 (Mr) Figures are as of March 31, 1982  
 (S) Figures are as of September 30, 1982

## PERFORMANCE

### How Did Endowment Pools Do in 1981-82?

The purpose of the NACUBO Comparative Performance Study is to aid administrators in evaluating their endowment pool's investment performance. Measuring comparative performance among pools with similar characteristics, objectives, and risk levels is useful in understanding the investment results achieved with respect to desired goals.

- o For the year ending June 30, 1982, the 218 participating college and university pools had an average rate of return of -0.9%. This rate is better than the -1.8% average rate of return earned by a composite of the S&P 500 Index, the Lehman Brothers-Kuhn Loeb Bond Index, and the average treasury bill rate using the same asset composition as the average investment pool (52.4% equities, 28.0% bonds, 13.8% cash and equivalents, 2.7% real estate, and 3.1% other assets).
- o The study also shows that for the three-year period ending June 30, 1982, the 8.3% average rate of return of the college and university pools exceeded the 6.0% rate of the composite market index.
- o For the five-year period ending June 30, 1982, the 7.7% average return of the endowment pools was higher than the 5.7% rate of the composite index.
- o Endowment pools underperformed inflation as measured by the Consumer Price Index ("CPI") and the Higher Education Price Index ("HEPI")\* for the one-, three-, five-, and ten-year periods ended June 30, 1982.
- o The total return earned on stocks in fiscal 1982, as measured by the S&P 500's -11.8%, was lower than the return from bonds: 7.4% for the Salomon Brothers Bond Index of high-quality, long-term bonds and 9.0% for the broader-based Lehman Brothers-Kuhn Loeb Bond Index. However, stocks performed best over the three, five, and ten years. Consequently, endowment pools which were more heavily stock-oriented, those with a total return investment objective, and larger endowment pools generally performed poorly in fiscal 1982 and better over the longer periods measured.
- o In terms of investment objectives, those pools with a "total-rate-of-return" objective underperformed those with "balanced" and "income" objectives in fiscal 1982. The opposite proved the case for the three- and five-year periods ended June 30, 1982. The total-rate-of-return pools on average were 61% invested in equities over the past five years, while the balanced pools were only 50% invested in equities.

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\*HEPI measures average changes in prices of goods and services purchased by colleges and universities through current fund educational and general expenditures.

- o The study reveals that, on average, the larger pools (over \$50 million) underperformed the middle pools (\$10-\$50 million), which underperformed the smallest pools (under \$10 million) during the past year, but the reverse was the case for the three-, five-, and ten-year periods measured. For the last five years, the groups had average equity positions of 59%, 55%, and 47% for the largest, middle, and smallest sized pools, respectively.
- o Those investment pools which were managed during the year ended June 30, 1982, after adjusting for their respective asset compositions, performed about two percentage points poorer than those pools managed internally. In 1981 and 1980, externally managed pools averaged about two percentage points better than those managed internally. In 1979 results were about equal, and in 1978 and 1977 the internally managed pools outperformed those managed externally.
- o Of the 29 internally managed pools, the 10 pools over \$50 million in size performed almost 2 percentage points better than the 19 under \$50 million after adjusting for respective asset composition.
- o Investment pools where bonds were more actively managed in fiscal 1982 (i.e., those having higher bond turnover percentage rates) underperformed, on average, those pools having lower turnover rates. Pools with the highest equity turnover performed better than those pools with the lowest turnover.
- o Investment pool assets continued to shift from equities, an occurrence which has taken place every year since NACUBO began collecting such data in 1974. Pool assets also continued to shift toward bonds. This has happened in every year except 1977, when bond positions remained stable.
- o Since NACUBO began gathering college and university data in 1974, endowment pools, as represented by the newly established NACUBO Endowment Performance Index ("NEPI"), have produced total returns in excess of those of the stock and bond market indexes.

To provide a better understanding of how an institution might interpret its investment pool performance, the performance for the average investment pool is presented in Table 4 for the one-, three-, five-, and ten-year periods ending June 30, 1982. Also shown is performance based on investment objective and relative size.

Table 4

Average Total Return Performance for Periods  
Ended June 30, 1982

|                                        | <u>One<br/>Year</u> | <u>Three<br/>Years</u> | <u>Five<br/>Years</u> | <u>Ten<br/>Years</u> |
|----------------------------------------|---------------------|------------------------|-----------------------|----------------------|
| All Investment Pools Measured          | -0.93%              | 8.31%                  | 7.70%                 | 5.21%                |
| By Investment Objective:               |                     |                        |                       |                      |
| Total Return Pools                     | -2.17               | 9.29                   | 8.62                  | 5.07                 |
| Balanced or Income Pools               | -0.10               | 7.62                   | 7.07                  | 5.31                 |
| By Size:                               |                     |                        |                       |                      |
| Over \$50 million                      | -1.63               | 9.05                   | 8.46                  | 5.54                 |
| \$10 to \$50 million                   | -1.20               | 8.49                   | 7.92                  | 5.18                 |
| Under \$10 million                     | 0.28                | 7.10                   | 6.41                  | 4.83                 |
| Comparative Indexes:                   |                     |                        |                       |                      |
| Dow Jones Industrial Average           | -11.70              | 4.88                   | 3.45                  | 3.70                 |
| S&P 500 Index                          | -11.76              | 7.68                   | 7.19                  | 4.79                 |
| Salomon Brothers Bond Index            | 7.43                | -3.85                  | -1.23                 | 2.76                 |
| Lehman Brothers-Kuhn Loeb Bond Index   | 9.04                | -1.18                  | 0.64                  | N/A                  |
| Other Benchmarks:                      |                     |                        |                       |                      |
| The Common Fund for Equity Investments | -13.25              | 11.31                  | 12.72                 | 5.35                 |
| The Common Fund for Bond Investments   | 10.98               | 0.10                   | 2.30                  | N/A                  |
| Inflation Benchmarks:                  |                     |                        |                       |                      |
| Consumer Price Index                   | 7.08                | 10.25                  | 9.68                  | 8.51                 |
| Higher Education Price Index           | 9.92                | 9.88                   | 8.81                  | 7.80                 |

While one year is too short a period from which to draw any significant conclusions regarding performance, for the year ended June 30, 1982, 209 (96%) of the 218 pools in the CPS outperformed the Dow Jones Industrial Average. This widely followed benchmark should not be the sole measure used when comparing the performance of the average endowment investment pool. A better measure, but one still not completely representative for comparative purposes, is the S&P 500 Index. Ninety-six percent of the 218 pools also outperformed the S&P 500 Index in 1981-82, which was a period of declining stock prices. This is not surprising since most endowment pools maintain a balanced investment mix and are not totally invested in stocks. Virtually all of the endowment investment pools underperformed both the Salomon Brothers Bond Index and the Lehman Brothers-Kuhn Loeb Bond Index. This, too, is not surprising, as the large stock component of funds probably hurt performance. For those few pools totally invested in either common stocks or long-term bonds, a direct comparison to the S&P 500 Index or either bond index, respectively, is more valid.

Table 5

Investment Pools Which Outperformed the Popular Indexes  
for Periods Ended June 30, 1982

| <u>Period Ended June 30, 1982</u> | <u>Dow Jones<br/>Industrial<br/>Average</u> | <u>S&amp;P 500<br/>Index</u> | <u>Salomon<br/>Brothers<br/>Bond Index</u> | <u>Lehman<br/>Kuhn Loeb<br/>Index</u> |
|-----------------------------------|---------------------------------------------|------------------------------|--------------------------------------------|---------------------------------------|
| <u>One Year</u>                   |                                             |                              |                                            |                                       |
| Number of Pools Measured          | 218                                         | 218                          | 218                                        | 218                                   |
| Number Outperforming Index        | 209                                         | 209                          | 22                                         | 14                                    |
| Percent                           | 96%                                         | 96%                          | 10%                                        | 6%                                    |
| <u>Three Years</u>                |                                             |                              |                                            |                                       |
| Number of Pools Measured          | 210                                         | 210                          | 210                                        | 210                                   |
| Number Outperforming Index        | 185                                         | 118                          | 209                                        | 209                                   |
| Percent                           | 88%                                         | 56%                          | 100%                                       | 100%                                  |
| <u>Five Years</u>                 |                                             |                              |                                            |                                       |
| Number of Pools Measured          | 195                                         | 195                          | 195                                        | 195                                   |
| Number Outperforming Index        | 189                                         | 109                          | 194                                        | 194                                   |
| Percent                           | 97%                                         | 56%                          | 99%                                        | 99%                                   |
| <u>Ten Years</u>                  |                                             |                              |                                            |                                       |
| Number of Pools Measured          | 150                                         | 150                          | 150                                        | N/A                                   |
| Number Outperforming Index        | 119                                         | 77                           | 137                                        | N/A                                   |
| Percent                           | 19%                                         | 51%                          | 91%                                        | N/A                                   |

### Bond Indexes

In years prior to 1981, the NACUBO CPS cited the Salomon Brothers Index as an appropriate comparative "bogey" for the fixed-income portion of investment pools. Because of increased volatility in the bond market and a greater emphasis on active bond management, more and more money managers use the broader Lehman Brothers-Kuhn Loeb Bond Index to evaluate the performance of fixed-income assets. The 1982 CPS, like the 1981 CPS, uses the Lehman Index for this purpose. The composition of the Salomon and Lehman indexes is as follows:

THE SALOMON BROTHERS HIGH-GRADE LONG-TERM CORPORATE BOND INDEX is composed of all publicly issued, fixed-rate, nonconvertible domestic debt of the three major corporate classifications: industrial, utility, and financial. Bonds included have a quality rating of AAA-AA by Standard & Poor's. Only bonds with a minimum outstanding principal amount of \$25,000,000 and a minimum maturity of 12 years are included. The index has a maturity of 25 years.

THE LEHMAN BROTHERS-KUHN LOEB CORPORATE BOND INDEX is composed of all publicly issued, fixed-rate, nonconvertible domestic debt of the three major corporate classifications: industrial, utility, and financial. Bonds included have a rating of at least Baa by Moody's Investors Service, BBB by Standard & Poor's Corporation, or, in the case of bank bonds not rated by either Moody's or Standard & Poor's, BBB by Fitch Investors Service. Only bonds with a minimum maturity of one year are included. All pass-through issues are excluded.

Some may consider the above summary incomplete in that it does not take into account important considerations concerning a specific investment pool, such as the pool's objective (which might be quite different from that of either the stock or bond indexes), its risk posture (which in most instances is below that of the stock market but above the bond market), and other policy constraints which have been placed on the pool.

The 1976 CPS marked the first time NACUBO attempted to evaluate investment pool performance on a "risk-adjusted" basis. For fiscal 1978, it was noted that on a risk-adjusted basis, significant value was added to endowment performance by investment management. In 1979, results were consistent with what might be expected. In 1981, as in 1980, results showed that significant value was added above what might be expected. In 1982, incremental value was also added, and while relative performance was satisfactory, absolute performance of endowment was a disappointment.

It is also helpful to view performance in the context of the distribution of the investment pool returns. Graph I (page 14) shows the performance distribution for all investment pools.

In Exhibit III (page 83), the total return for each pool is listed, along with the relative ranking of each pool for the one-, three-, five-, and ten-year periods ending June 30, 1982.



What should be of interest and concern to trustees and those administrators responsible for an investment pool is the return achieved from a blend of market indexes that mimics their own pool. In the case of the average pool, this means the return achieved as a result of the investment of its 52.4% stock component, 28.0% bond component, 13.8% cash component, 2.7% real estate component, and 3.1% miscellaneous assets component. (This is the third year NACUBO requested information regarding the real estate component of endowment pools, which previously was reported as part of miscellaneous assets.) On this basis, the one-year return of -0.93% for all investment pools appears 85 basis points more favorable when compared with the return of -1.78% which might be expected based on the asset components of the pool shown in Table 6.

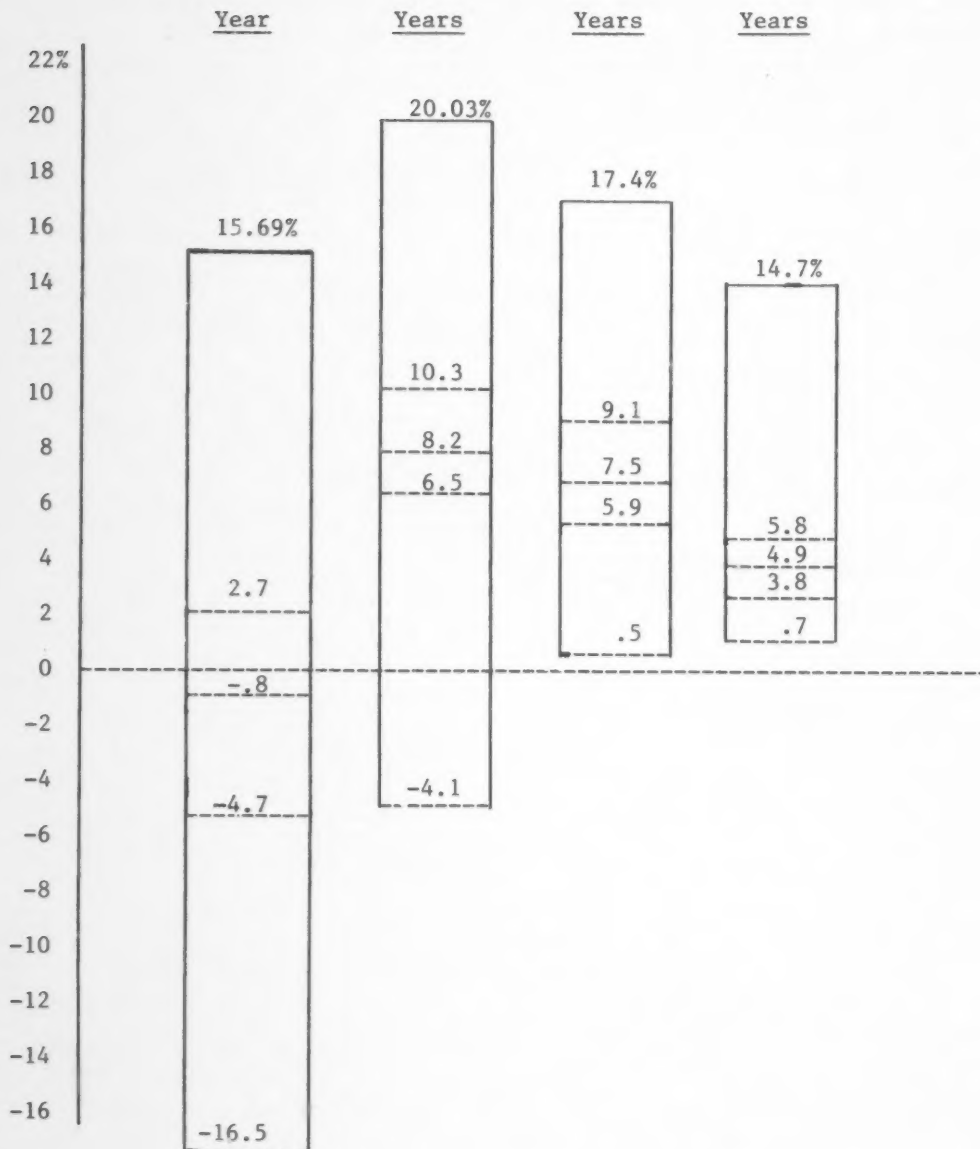
Table 6

Estimated Asset Component Return of All Investment Pools for the  
One-Year Period Ending June 30, 1982

| <u>Asset<br/>Component</u> | <u>Index</u>     | <u>Fiscal 1981-82<br/>Total<br/>Return Percent</u> | <u>Average<br/>Investment<br/>Pool Asset<br/>Component</u> | <u>Expected<br/>Total<br/>Return</u> |
|----------------------------|------------------|----------------------------------------------------|------------------------------------------------------------|--------------------------------------|
| Stocks                     | S&P 500          | -11.76%                                            | 52.4%                                                      | -6.16%                               |
| Bonds                      | Lehman-Kuhn Loeb | 9.04                                               | 28.0                                                       | 2.53                                 |
| Cash                       | Avg. Treas. Bill | 13.41                                              | 13.8                                                       | 1.85                                 |
| Real Estate                | N/A              | 0                                                  | 2.7                                                        | 0                                    |
| Miscellaneous              | N/A              | 0                                                  | 3.1                                                        | 0                                    |
| TOTAL                      |                  |                                                    | 100.0%                                                     | -1.78%                               |

## GRAPH I

Quartile Performance Distribution  
Of All Investment Pools\*  
For Periods Ended June 30, 1982



\*C99's total return performance result for the ten-year period was 21.63%. It is excluded from the above graph as was the case in the 1981 CPS. This institution has followed a nonconventional investment policy.

Table 7 shows an analysis of the components which make up total return.

Table 7

Total Return and Component Performance for the  
One-Year Period Ended June 30, 1982

|                                        | Appreciation<br>Change In<br>Market Value | Yield<br>(Income<br>Return)* | Total<br>Return |
|----------------------------------------|-------------------------------------------|------------------------------|-----------------|
| Average Investment Pool                | -8.76%                                    | 7.83%                        | -0.93%          |
| Dow Jones Industrial Average           | -16.89                                    | 5.19                         | -11.70          |
| S&P 500 Index                          | -16.48                                    | 4.72                         | -11.76          |
| Salomon Brothers Bond Index            | -5.51                                     | 12.94                        | 7.43            |
| Lehman Brothers-Kuhn Loeb Bond Index   | -1.79                                     | 10.83                        | 9.04            |
| Average One-Year Treasury<br>Bill Rate | 0                                         | 13.41                        | 13.41           |

\*Assumes reinvestment of income based on the average of the beginning and ending year market values (see Appendix II, page 144).

Table 8 indicates the yield (income return) to be expected from various types of assets. The 7.35% expected yield using the asset component analysis is close to the actual yield of 7.83% of the average pool shown in Table 7. The return would have been closer if some assumption had been made regarding real estate and miscellaneous assets. Assuming a 5% yield for these assets, which represent 5.8% of total assets, the expected yield would have been 7.64%.

Table 8

Yield Performance for the One-Year Period Ending June 30, 1982

| Asset<br>Component | Index            | Fiscal 1981-82<br>Yield | Average<br>Investment<br>Pool Asset<br>Component | Expected<br>Yield |
|--------------------|------------------|-------------------------|--------------------------------------------------|-------------------|
| Stocks             | S&P 500          | 4.72%                   | 52.4%                                            | 2.47%             |
| Bonds              | Lehman-Kuhn Loeb | 10.83                   | 28.0                                             | 3.03              |
| Cash               | Avg. Treas. Bill | 13.41                   | 13.8                                             | 1.85              |
| Real Estate        | N/A              | 0                       | 2.7                                              | 0                 |
| Miscellaneous      | N/A              | 0                       | 3.1                                              | 0                 |
| TOTAL              |                  |                         | <u>100.0%</u>                                    | <u>7.35%</u>      |

### Performance Summary

The average total return of the endowment investment pools is somewhat better (85 basis points or 0.85% higher return) than what might be expected based on the asset components of the funds (-0.93% actual return compared to -1.78% expected). This could be for a number of reasons. Perhaps assuming no return at all on 5.8% of the assets (real estate and miscellaneous) is unduly understating expected performance. If a 10% return were assumed for these assets, the favorable spread of actual results to expected results would be reduced to 27 basis points. Perhaps the S&P 500, the Lehman Brothers-Kuhn Loeb Index, and the average treasury bill are not representative of the type of stocks, bonds, and short-term investment vehicles used by colleges and universities. For example, perhaps the stocks held have different capitalizations and performance than those in the S&P 500, which is heavily weighted toward large capitalized stocks. Perhaps the bonds held were of different quality and maturity than the Lehman Brothers-Kuhn Loeb Index. Perhaps the short-term cash investments were in bankers' acceptances, certificates of deposit, commercial paper, or the Common Fund for Short-Term Investments, which might have produced a greater return than the average treasury bill rate. Whatever the reason for this good performance, such a comparison does take into account important constraints, such as a fixed income-to-equity ratio, placed on the manager by the institution's trustees. Therefore, it appears some value was added by management. But for performance results to be meaningful, longer periods should be looked at.

Table 9 shows that investment management also achieved a significant average annual incremental return for the five- and three-year periods ending June 30, 1982: 1.99% and 2.31%, respectively.

Table 9

#### All Pools

##### Actual Returns Compared to Asset Component Returns for the Five-Year and Three-Year Periods Ending June 30, 1982

|         | <u>Actual<br/>Return</u> | <u>Expected<br/>Total<br/>Return</u> | <u>Difference</u> |
|---------|--------------------------|--------------------------------------|-------------------|
| 5 Years | 7.70%                    | 5.71%                                | 1.99%             |
| 3 Years | 8.31                     | 6.00                                 | 2.31              |

# Endowment Total Return Performance Index

In 1982, the NACUBO Investments Committee decided to develop a NACUBO Endowment Performance Index ("NEPI"), representing the total return performance of the average endowment pool in the CPS. Because the committee first began publishing data from colleges and universities in fiscal 1974, this year was chosen to serve as the base year, setting the July 1, 1973, NEPI value at 100. The CPS year-by-year total return performance results for all endowment pools and various stock and bond indexes are shown in Table 10. The cumulative indexed results of the NEPI and comparative benchmarks (also initialized at 100 on July 1, 1973) are shown in Table 11.

Table 10

## Annual Total Return Performance Figures As Reported in 1974 to 1982 CPS

| <u>Fiscal Year</u> | <u>All Endowment Pools</u> | <u>Dow Jones Industrial Average</u> | <u>S&amp;P 500 Index</u> | <u>Salomon Brothers Bond Index</u> | <u>Lehman Brothers-Kuhn Loeb Bond Index</u> |
|--------------------|----------------------------|-------------------------------------|--------------------------|------------------------------------|---------------------------------------------|
| 1974               | -11.43%                    | -6.10%                              | -14.48%                  | -7.46%                             | 7.59%                                       |
| 1975               | 12.00                      | 14.58                               | 15.22                    | 14.51                              | 14.63                                       |
| 1976               | 9.93                       | 18.70                               | 13.68                    | 10.08                              | 12.89                                       |
| 1977               | 5.07                       | -4.45                               | 0.46                     | 14.65                              | 14.58                                       |
| 1978               | 2.49                       | -5.81                               | -0.16                    | -0.97                              | 0.33                                        |
| 1979               | 10.80                      | 9.05                                | 13.52                    | 6.75                               | 6.63                                        |
| 1980               | 11.90                      | 9.45                                | 17.05                    | -3.66                              | -2.16                                       |
| 1981               | 14.64                      | 19.39                               | 20.89                    | -14.11                             | -9.53                                       |
| 1982               | -0.93                      | -11.70                              | -11.76                   | 7.43                               | 9.04                                        |

Table 11

## NACUBO Endowment Performance Index ("NEPI") Showing Cumulative Total Return Performance Figures for All Endowment Pools as Reported in Annual CPS and Indexes (Initialized at 100 on July 1, 1973) through June 30, 1982

| <u>Fiscal Year</u>   | <u>All Endowment Pools</u> | <u>Dow Jones Industrial Average</u> | <u>S&amp;P 500 Index</u> | <u>Salomon Brothers Bond Index</u> | <u>Lehman Brothers-Kuhn Loeb Bond Index</u> |
|----------------------|----------------------------|-------------------------------------|--------------------------|------------------------------------|---------------------------------------------|
| Inception<br>July 1, |                            |                                     |                          |                                    |                                             |
| 1973                 | 100.00                     | 100.00                              | 100.00                   | 100.00                             | 100.00                                      |
| 1974                 | 88.57                      | 89.99                               | 85.52                    | 92.54                              | 92.41                                       |
| 1975                 | 99.20                      | 107.59                              | 98.54                    | 105.97                             | 105.94                                      |
| 1976                 | 109.05                     | 127.71                              | 112.02                   | 116.65                             | 119.59                                      |
| 1977                 | 114.58                     | 122.03                              | 112.53                   | 133.74                             | 137.02                                      |
| 1978                 | 117.43                     | 114.94                              | 112.35                   | 132.44                             | 137.47                                      |
| 1979                 | 130.11                     | 125.34                              | 127.54                   | 141.39                             | 146.59                                      |
| 1980                 | 145.60                     | 137.18                              | 149.29                   | 136.22                             | 143.42                                      |
| 1981                 | 166.91                     | 163.77                              | 180.48                   | 116.99                             | 129.74                                      |
| 1982                 | 165.36                     | 144.62                              | 159.26                   | 125.68                             | 141.48                                      |

Performance by Investment Objective

As can be seen in Table 4, page 10, for the one-year period ending June 30, 1982, the major broad market index for measuring stock performance (the S&P 500 Index) shows a significantly lower total return than did the major index for measuring bond performance (the Lehman Brothers-Kuhn Loeb Bond Index). Inasmuch as the pools with total return as an investment objective were on average 57.9% invested in stocks as compared to 48.6% for the pools with a balanced objective, and had a lower average bond exposure of 22.5% versus 31.8%, one would expect the total return pools to underperform the balanced pools. This, in fact, was the case for the year ending June 30, 1982. The total return pools had a total return of -2.17% as compared to -0.10% for the balanced pools--a difference of 2.07%. Applying the asset component analysis (as in Table 6) to each group of pools, one would expect the total return pools to show a -2.92% return and balanced pools a -1.00% return, a difference of 1.92%. Table 12 shows that on a risk-adjusted basis, balanced pools appear to have performed slightly better than total return pools, by 15 basis points. Both total return and balanced pools exceed expected returns by 75 and 90 basis points, respectively.

Table 12

Actual Returns Compared to Expected Total Returns  
for the One-Year Period Ending June 30, 1982

|                          | <u>Actual<br/>Return</u> | <u>Expected<br/>Total<br/>Return*</u> | <u>Difference</u> |
|--------------------------|--------------------------|---------------------------------------|-------------------|
| Total Return Pools       | -2.17%                   | -2.92%                                | 6.48%             |
| Balanced or Income Pools | -0.10                    | -1.00                                 | 0.90              |
| Difference               | 2.07%                    | 1.92%                                 | 0.15%             |

\*Calculated the same as in Table 6.

Over the three-year and five-year periods, as shown in Table 13, total return pools outperformed balanced pools on a nominal basis and in conformance with expected returns. The actual returns of both groups were greater than expected by a wide margin. No calculations can be made for the ten-year period because sufficient data on investment pool asset component percentages are not available.



Table 13

Total Return Pool and Balanced Pool  
Actual Returns Compared to Expected Total Returns  
for the Five-Year and Three-Year Periods Ended June 30, 1982

| <u>5-Year Period</u>     | <u>Actual<br/>Return</u> | <u>Expected<br/>Total<br/>Return*</u> | <u>Difference</u> |
|--------------------------|--------------------------|---------------------------------------|-------------------|
| Total Return Pools       | 8.62%                    | 6.03%                                 | 2.59%             |
| Balanced or Income Pools | 7.07                     | 5.12                                  | 1.95              |
| Difference               | 1.55%                    | 0.91%                                 | 0.64%             |
| <u>3-Year Period</u>     |                          |                                       |                   |
| Total Return Pools       | 9.29%                    | 6.34%                                 | 2.95%             |
| Balanced or Income Pools | 7.62                     | 5.12                                  | 2.50              |
| Difference               | 1.67%                    | 1.22%                                 | 0.45%             |

\*Calculated the same as in Table 6 for each year, and results compounded on an average annual basis.

Performance by Size

For the one-year period ended June 30, 1982, the relative performance of the under-\$10 million group was better than that of the \$10-\$50 million group, which was better than that of the over-\$50 million group. The over-\$50 million group performed best for the three-, five-, and ten-year periods. This group was followed by the \$10-\$50 million group.

Table 14 shows that, for the one-year period, all three groups performed equally well, based on asset components. For the three- and five-year periods, the over-\$50 million group outperformed the \$10-\$50 million group. Both larger-sized groups outperformed the under-\$10 million group for these longer periods. Actual returns for all groups were greater than expected returns in all periods.

Table 14

Actual Returns Compared to Expected Total Returns by Endowment Size  
for the Five-Year and Three-Year Periods Ending June 30, 1982

| <u>5-Year Period</u>         | <u>Actual<br/>Return</u> | <u>Expected<br/>Total<br/>Return*</u> | <u>Difference</u> |
|------------------------------|--------------------------|---------------------------------------|-------------------|
| Over \$50 million            | 8.46%                    | 5.79%                                 | 2.67%             |
| \$10 to \$50 million         | 7.92                     | 5.53                                  | 2.39              |
| Under \$10 million           | 6.41                     | 5.01                                  | 1.40              |
| <br><u>3-Year Period</u>     |                          |                                       |                   |
| Over \$50 million            | 9.05%                    | 6.00%                                 | 3.05%             |
| \$10 million to \$50 million | 8.49                     | 5.69                                  | 2.80              |
| Under \$10 million           | 7.10                     | 4.98                                  | 2.12              |
| <br><u>1-Year Period</u>     |                          |                                       |                   |
| Over \$50 million            | -1.63%                   | -2.52%                                | 0.89%             |
| \$10 to \$50 million         | -1.20                    | -2.03                                 | 0.83              |
| Under \$10 million           | 0.28                     | -0.63                                 | 0.91              |

\*Calculated the same as in Table 6 for each year, and results compounded on an average annual basis.

Performance Based on Equity Weightings

Because investment performance is heavily influenced by a pool's exposure to stocks, bonds, and other investment media, the 1982 CPS includes performance rankings based on three equity percentage classifications: those pools 65% or more in equities, those 50% to 65% in equities, and those under 50% in equities. Each investment pool's total return performance ranking, grouped by average beginning and ending year percentage in equities, is shown in Exhibit III. Table 15 shows the one-, three-, five-, and ten-year performance of each group and the respective average 1982 equity position of the median investment pool.

Table 15

Average Total Return Performance  
Based on Average Percentage in Equities

| Average<br>Percentage<br>In Equities | 1982<br>Number<br>Of<br>Pools | 1982<br>Median<br>Equity<br>% | Period Ended June 30, 1982 |                |               |              |
|--------------------------------------|-------------------------------|-------------------------------|----------------------------|----------------|---------------|--------------|
|                                      |                               |                               | One-<br>Year               | Three-<br>Year | Five-<br>Year | Ten-<br>Year |
| 65% or more                          | 52                            | 72%                           | -5.80%                     | 8.89%          | 8.46%         | 5.66%        |
| 50 - 65%                             | 89                            | 57                            | -1.15                      | 8.67           | 7.94          | 5.14         |
| Under 50%                            | 77                            | 38                            | 2.60                       | 7.49           | 6.94          | 4.99         |
| All Pools                            | 218                           | 55                            | -0.93                      | 8.31           | 7.70          | 5.21         |

A word of caution on Table 15: to the extent a significant number of investment pools were in a different equity category grouping in years prior to fiscal 1982, the performance figures for the three-, five-, and ten-year periods could be misleading. The one-year results, however, are clear; as expected, the greater the equity exposure the worse the results.

This same caveat applies if prior to 1982 a pool changed investment objective or fell into a different size category grouping.

Keeping Pace with Inflation

Another important consideration when evaluating an investment pool's performance is its ability to keep pace with inflation. Two benchmarks are included in the 1982 CPS, the Consumer Price Index ("CPI") and the Higher Education Price Index ("HEPI"). The one-, three-, five-, and ten-year compound increases for each index are shown in Table 4. For all periods, overall investment pool performance trailed these two indexes.

Internal Investment Management Performance

Of the 218 investment pools in the 1982 CPS, 29 are managed internally. The size of these pools is shown in Table 16.

Table 16

Internal Investment Management  
(by Size)

| <u>Pool Size (Market Value)</u> | <u>Number in Each Group</u> |
|---------------------------------|-----------------------------|
| Greater than \$100 million      | 9                           |
| \$50 million to \$100 million   | 1                           |
| \$25 to \$50 million            | 4                           |
| \$10 to \$25 million            | 7                           |
| \$5 to \$10 million             | 3                           |
| Under \$5 million               | 5                           |
| TOTAL                           | 29                          |

The one-year total return for the 29 pools managed internally was 1.02%, better than the -1.23% for the 182 pools managed externally. Year-by-year total return results since NACUBO began gathering these data are shown in Table 17.

Table 17

Fiscal Year Total Return Investment Performance  
for Internally and Externally Managed Pools from 1977 to 1982

|      | <u>Internally<br/>Managed</u> | <u>Externally<br/>Managed</u> |
|------|-------------------------------|-------------------------------|
| 1982 | 1.02%                         | -1.23%                        |
| 1981 | 12.46                         | 14.97                         |
| 1980 | 9.80                          | 12.39                         |
| 1979 | 10.83                         | 10.79                         |
| 1978 | 3.66                          | 2.28                          |
| 1977 | 6.05                          | 4.88                          |

The 1982 average asset components of internally and externally managed pools are shown in Table 18. Because of their lower equity positions, it would be expected that internally managed pools would perform better in 1982. Based on their respective asset components, both groups performed better than might be expected--internal pools by 104 basis points (1.02% actual less -0.02% expected) and external pools by 82 basis points (-1.23% actual less -2.05% expected).

Table 18

Average Asset Composition of Internally and Externally  
Managed Investment Pools for Fiscal 1982

|               | <u>Internally<br/>Managed</u> | <u>Externally<br/>Managed</u> |
|---------------|-------------------------------|-------------------------------|
| Stocks        | 43.4%                         | 53.9%                         |
| Bonds         | 28.5                          | 27.9                          |
| Cash          | 19.0                          | 13.1                          |
| Real Estate   | 5.2                           | 2.3                           |
| Miscellaneous | <u>3.9</u>                    | <u>2.9</u>                    |
| TOTAL         | <u>100.0%</u>                 | <u>100.0%</u>                 |

A one-year review of the performance of the 10 largest internally managed pools, those over \$50 million, showed a return of 0.18% compared to 1.47% for the 19 pools under \$50 million in size. Based on their respective asset composition (as shown in Table 19), the larger pools performed 214 basis points above what might be expected (0.18% actual less -1.96% expected), and the smaller pools 42 basis points (1.47% actual less 1.05% expected) above.

Table 19

Average Asset Composition of Largest and Smallest  
Internally Managed Investment Pools for Fiscal 1982

|               | <u>Over<br/>\$50 Million</u> | <u>Under<br/>\$50 Million</u> |
|---------------|------------------------------|-------------------------------|
| Stocks        | 54.1%                        | 37.9%                         |
| Bonds         | 22.6                         | 31.5                          |
| Cash          | 17.5                         | 19.8                          |
| Real Estate   | 3.9                          | 5.9                           |
| Miscellaneous | <u>1.9</u>                   | <u>4.9</u>                    |
| TOTAL         | 100.0%                       | 100.0%                        |

ASSET COMPOSITION

Summary

Table 20 shows the asset composition of the investment pools as of June 30, 1982. On the average, 48.1% of the assets of pooled funds was invested in stocks and 30.6% in bonds. As one would expect, the pools with a total return investment objective were more heavily invested in stocks (53.2%) than were balanced fund pools (44.4%). It can also be seen that the larger-sized pools had greater amounts invested in stocks than did the smaller pools.

Table 20

Asset Composition of Pools by Size and Type  
at June 30, 1982

|               | <u>By Investment Objective</u> |                         |                 | <u>By Size</u>               |                                 |                               |
|---------------|--------------------------------|-------------------------|-----------------|------------------------------|---------------------------------|-------------------------------|
|               | <u>All<br/>Pools</u>           | <u>Total<br/>Return</u> | <u>Balanced</u> | <u>Over \$50<br/>Million</u> | <u>\$10 to \$50<br/>Million</u> | <u>Under \$10<br/>Million</u> |
| Stocks        | 48.1%                          | 53.2%                   | 44.4%           | 50.3%                        | 48.7%                           | 44.2%                         |
| Bonds         | 30.6                           | 25.0                    | 34.5            | 28.8                         | 28.4                            | 36.5                          |
| Cash          | 15.4                           | 15.9                    | 15.1            | 13.7                         | 15.8                            | 16.6                          |
| Real Estate   | 2.7                            | 1.9                     | 3.3             | 2.8                          | 3.4                             | 1.5                           |
| Miscellaneous | <u>3.2</u>                     | <u>4.0</u>              | <u>2.7</u>      | <u>4.4</u>                   | <u>3.7</u>                      | <u>1.2</u>                    |
| TOTAL         | <u>100.0%</u>                  | <u>100.0%</u>           | <u>100.0%</u>   | <u>100.0%</u>                | <u>100.0%</u>                   | <u>100.0%</u>                 |

For the most recent five years, 1978 through 1982, the average asset composition by size and investment type is shown in Table 21.

Table 21

Average Asset Composition of Pools by Size and Type  
From Fiscal 1978 to Fiscal 1982

| <u>Pools over \$50 Million</u>    | <u>Stocks</u> | <u>Bonds</u> | <u>Cash</u> | <u>Real Estate</u> | <u>Misc.</u> | <u>Total</u> |
|-----------------------------------|---------------|--------------|-------------|--------------------|--------------|--------------|
| 1982                              | 55.1%         | 25.6%        | 12.3%       | 2.8%               | 4.2%         | 100.0%       |
| 1981                              | 60.2          | 23.0         | 11.3        | 2.7                | 2.8          | 100.0        |
| 1980                              | 57.5          | 25.3         | 12.0        | 2.0                | 3.2          | 100.0        |
| 1979                              | 59.9          | 25.5         | 11.4        | N/A                | 3.2          | 100.0        |
| 1978                              | 60.2          | 26.3         | 10.0        | N/A                | 4.5          | 100.0        |
| 3-Year Average                    | 57.6          | 24.6         | 11.9        | N/C                | N/C          | 100.0        |
| 5-Year Average                    | 58.6          | 25.1         | 11.4        | N/C                | N/C          | 100.0        |
| <u>Pools \$10 to \$50 Million</u> |               |              |             |                    |              |              |
| 1982                              | 53.3          | 25.9         | 14.2        | 3.3                | 3.4          | 100.0        |
| 1981                              | 55.9          | 25.4         | 12.6        | 2.8                | 3.3          | 100.0        |
| 1980                              | 54.0          | 26.3         | 13.4        | 2.4                | 3.9          | 100.0        |
| 1979                              | 54.1          | 27.2         | 14.3        | N/A                | 4.4          | 100.0        |
| 1978                              | 56.6          | 28.5         | 10.4        | N/A                | 4.5          | 100.0        |
| 3-Year Average                    | 54.4          | 25.9         | 13.4        | N/C                | N/C          | 100.0        |
| 5-Year Average                    | 54.8          | 26.7         | 13.0        | N/C                | N/C          | 100.0        |
| <u>Pools under \$10 Million</u>   |               |              |             |                    |              |              |
| 1982                              | 48.4          | 34.1         | 14.8        | 1.5                | 1.3          | 100.0        |
| 1981                              | 49.1          | 33.0         | 16.0        | 0.6                | 1.3          | 100.0        |
| 1980                              | 42.4          | 35.9         | 19.3        | 0.2                | 2.2          | 100.0        |
| 1979                              | 43.8          | 38.4         | 15.7        | N/A                | 2.1          | 100.0        |
| 1978                              | 51.9          | 35.2         | 11.1        | N/A                | 1.8          | 100.0        |
| 3-Year Average                    | 46.6          | 34.3         | 16.7        | N/C                | N/C          | 100.0        |
| 5-Year Average                    | 47.1          | 35.3         | 15.4        | N/C                | N/C          | 100.0        |
| <u>Total Return Pools</u>         |               |              |             |                    |              |              |
| 1982                              | 57.9          | 22.5         | 13.9        | 1.8                | 3.9          | 100.0        |
| 1981                              | 62.1          | 20.8         | 13.0        | 1.3                | 2.8          | 100.0        |
| 1980                              | 58.1          | 22.8         | 15.5        | 1.2                | 2.4          | 100.0        |
| 1979                              | 60.0          | 22.5         | 14.9        | N/A                | 2.6          | 100.0        |
| 1978                              | 64.3          | 23.0         | 9.9         | N/A                | 2.8          | 100.0        |
| 3-Year Average                    | 59.4          | 22.0         | 14.1        | N/C                | N/C          | 100.0        |
| 5-Year Average                    | 60.5          | 22.3         | 13.4        | N/C                | N/C          | 100.0        |
| <u>Balanced or Income Pools</u>   |               |              |             |                    |              |              |
| 1982                              | 48.6          | 31.8         | 13.8        | 3.3                | 2.5          | 100.0        |
| 1981                              | 51.1          | 30.6         | 13.1        | 2.7                | 2.5          | 100.0        |
| 1980                              | 47.5          | 32.7         | 14.1        | 2.0                | 3.7          | 100.0        |
| 1979                              | 48.6          | 34.1         | 13.6        | N/A                | 3.7          | 100.0        |
| 1978                              | 51.6          | 34.0         | 10.7        | N/A                | 3.7          | 100.0        |
| 3-Year Average                    | 49.1          | 31.7         | 13.7        | N/C                | N/C          | 100.0        |
| 5-Year Average                    | 49.5          | 32.6         | 13.1        | N/C                | N/C          | 100.0        |

N/A - Not Available  
N/C - Not Calculated



### Shifts in Investments

The net change in asset composition over the year results from a combination of two factors. The first is a change in stock, bond, and other asset prices; the second is a shift in investments. Tables 22 through 24 show the estimated shift in investments made by management decisions for all pools and for pools grouped by size and investment objective. To the June 30, 1981, asset composition figures is applied the change in market price of each type of investment to arrive at projected asset composition figures for June 30, 1982. The actual composition amounts are then subtracted from the projected amounts to arrive at the net change caused by shifts in investments. The decrease of 16.48% in the market price of the S&P 500 Index is used to arrive at the projected stock figure, while the decrease of 1.79% in market price of the Lehman Brothers-Kuhn Loeb Broad Based Bond Index is used to arrive at the projected bond figure.\* The projections assume no market price change for cash, real estate, or miscellaneous assets. While these computations do not provide a precise measurement of shifts in investments, they do provide estimates which can be studied.

Table 22

#### Change in Asset Composition Caused by Shifts in Investments -- All Pools

|               | <u>June 30, 1981</u> |                  | <u>June 30, 1982</u> |                   |
|---------------|----------------------|------------------|----------------------|-------------------|
|               | <u>Actual</u>        | <u>Predicted</u> | <u>Actual</u>        | <u>Difference</u> |
| Stocks        | 56.7%                | 52.5%            | 48.1%                | -4.4%             |
| Bonds         | 25.3                 | 27.6             | 30.6                 | 3.0               |
| Cash          | 12.3                 | 13.6             | 15.4                 | 1.8               |
| Real Estate   | 2.7                  | 3.0              | 2.7                  | -0.3              |
| Miscellaneous | <u>3.0</u>           | <u>3.3</u>       | <u>3.2</u>           | -0.1              |
| TOTAL         | 100.0%               | 100.0%           | 100.0%               |                   |

Table 23

#### Change in Asset Composition Caused by Shifts in Investments All Pools 1974-1982

##### Percentage Change -- Year Ended June 30

|               | <u>1974</u> | <u>1975</u> | <u>1976</u> | <u>1977</u> | <u>1978</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>Total</u> |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Stocks        | -4.0%       | -1.2%       | -2.2%       | -1.1%       | -4.8%       | -3.3%       | -2.3%       | -2.0%       | -4.4%       | -25.3%       |
| Bonds         | 1.3         | 3.9         | 4.2         | 0           | 0.6         | 1.3         | 2.6         | 2.4         | 3.0         | 19.3         |
| Cash          | 3.0         | -2.9        | -1.7        | 1.0         | 4.2         | 1.9         | -0.6        | -0.7        | 1.8         | 6.0          |
| Real Estate   | N/A         | N/A         | N/A         | N/A         | N/A         | N/A         | 0.4         | 0.2         | -0.3        | 0.3          |
| Miscellaneous | -0.3        | 0.2         | -0.3        | 0.1         | 0           | 0.1         | -0.1        | 0.1         | -0.1        | -0.3         |

\*In years prior to 1981, the Salomon Brothers High-Grade, Long-Term Bond Index was used.

Table 24

Change in Asset Composition Caused by Shifts in Investments  
by Size and Type

Percentage Change -- 1974 through 1982

| <u>Total Return</u>         | <u>1974</u> | <u>1975</u> | <u>1976</u> | <u>1977</u> | <u>1978</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>Total</u> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Stocks                      | -5.1%       | -0.5%       | -3.7%       | -0.2%       | -6.2%       | -4.2%       | -1.5%       | -0.8%       | -5.3%       | -27.5%       |
| Bonds                       | 0.1         | 2.6         | 5.8         | 0.2         | 1.7         | 1.5         | 1.0         | 2.2         | 3.1         | 18.2         |
| Cash                        | 5.0         | -2.7        | -1.4        | 0.5         | 4.6         | 1.8         | 0.7         | -1.3        | 2.4         | 9.6          |
| Real Estate                 | N/A         | N/A         | N/A         | N/A         | N/A         | N/A         | 0.3         | 0.1         | -0.1        | 0.3          |
| Miscellaneous               | 0           | 0.6         | -0.7        | -0.5        | -0.1        | 0.9         | -0.5        | -0.2        | -0.1        | -0.6         |
| <u>Balanced</u>             |             |             |             |             |             |             |             |             |             |              |
| Stocks                      | -3.5        | -1.9        | -1.4        | -1.4        | -4.1        | -2.8        | -3.0        | -2.3        | -4.2        | -24.6        |
| Bonds                       | 2.0         | 4.7         | 3.3         | -0.2        | 0           | 0.9         | 3.9         | 2.3         | 3.1         | 20.0         |
| Cash                        | 1.9         | -2.8        | -1.4        | 1.3         | 4.1         | 2.0         | -1.4        | -0.3        | 1.3         | 4.3          |
| Real Estate                 | N/A         | N/A         | N/A         | N/A         | N/A         | N/A         | 0.5         | 0.1         | -0.3        | 0.3          |
| Miscellaneous               | -0.4        | 0           | -0.1        | 0.3         | 0           | -0.1        | 0           | 0.2         | -0.1        | 0            |
| <u>Over \$50 Million</u>    |             |             |             |             |             |             |             |             |             |              |
| Stocks                      | -4.5        | -1.9        | -1.3        | -0.5        | -1.5        | -1.8        | -2.9        | -2.6        | -5.5        | -22.5        |
| Bonds                       | -0.1        | 5.1         | 1.3         | -0.9        | -1.1        | 1.2         | 3.1         | 2.0         | 4.3         | 14.9         |
| Cash                        | 4.7         | -3.4        | -1.4        | 1.7         | 2.7         | 0.7         | -0.7        | -0.1        | 1.7         | 5.9          |
| Real Estate                 | N/A         | N/A         | N/A         | N/A         | N/A         | N/A         | 0.7         | 0.5         | 0.3         | 0.9          |
| Miscellaneous               | -0.1        | 0.2         | 1.4         | -0.3        | -0.1        | -0.1        | -0.2        | 0.2         | -0.2        | 0.8          |
| <u>\$10 to \$50 Million</u> |             |             |             |             |             |             |             |             |             |              |
| Stocks                      | -3.5        | -2.9        | -1.6        | -0.9        | -6.3        | -2.6        | -2.7        | -2.7        | -4.7        | -26.8        |
| Bonds                       | 0.5         | 4.3         | 4.3         | -0.9        | 1.7         | 0.7         | 2.4         | 2.4         | 2.8         | 17.9         |
| Cash                        | 3.6         | -2.1        | -1.4        | 1.5         | 4.8         | 1.3         | 0.1         | 0.1         | 1.8         | 9.8          |
| Real Estate                 | N/A         | N/A         | N/A         | N/A         | N/A         | N/A         | 0.2         | 0.2         | -0.2        | 0.5          |
| Miscellaneous               | -0.6        | 0.7         | -1.3        | 0.3         | -0.2        | 0.6         | 0           | 0           | 0.3         | -1.4         |
| <u>Under \$10 Million</u>   |             |             |             |             |             |             |             |             |             |              |
| Stocks                      | -4.2        | 0.2         | -3.4        | -1.7        | -5.1        | -5.2        | 0.3         | 0.3         | -4.1        | -26.0        |
| Bonds                       | 2.1         | 2.9         | 5.7         | 1.6         | 0.4         | 1.7         | 2.4         | 2.4         | 2.4         | 22.0         |
| Cash                        | 2.2         | -3.0        | -1.8        | 0.2         | 4.7         | 3.5         | -2.7        | -2.7        | 2.2         | 3.5          |
| Real Estate                 | N/A         | N/A         | N/A         | N/A         | N/A         | N/A         | 0           | 0           | -0.2        | 0            |
| Miscellaneous               | -0.1        | -0.1        | -0.5        | -0.1        | 0           | 0           | 0           | 0           | -0.3        | 0.5          |

Shifts in Investments from 1974 through 1982

Since 1974, when NACUBO began gathering data on shifts in investments, endowment investment pools have been continuously decreasing their exposure to stocks, as shown in Table 23. Conversely, pools have increased their bond exposure every year, except for 1977 when it appeared that no shift in bonds occurred. In retrospect, as shown in Table 25, this generally proved unfavorable. In all years except 1974, 1977, and 1982, stocks outperformed bonds. In regard to shifting cash, endowment investment pools would have been best served if cash had been increased in 1974, 1978, and 1982; and this was in fact the case.

Table 25

Yearly Total Return for One-Year Treasuries,  
the Salomon Brothers Index, and the S&P 500

| <u>Fiscal</u><br><u>Year</u> | <u>Average One-</u><br><u>Year Treasuries</u> | <u>Salomon Brothers</u><br><u>Bond Index</u> | <u>S&amp;P 500</u><br><u>Index</u> |
|------------------------------|-----------------------------------------------|----------------------------------------------|------------------------------------|
| 1982                         | 13.41%                                        | 7.43%                                        | -11.76%                            |
| 1981                         | 12.98                                         | -14.11                                       | 20.86                              |
| 1980                         | 11.42                                         | -3.66                                        | 17.13                              |
| 1979                         | 9.85                                          | 6.75                                         | 13.47                              |
| 1978                         | 6.49                                          | -0.97                                        | -0.16                              |
| 1977                         | 5.57                                          | 14.65                                        | 0.46                               |
| 1976                         | 6.54                                          | 10.08                                        | 13.81                              |
| 1975                         | 7.48                                          | 14.51                                        | 15.22                              |
| 1974                         | 8.03                                          | -7.46                                        | -14.48                             |

# Distribution of Asset Composition

Table 26 shows the asset composition distribution for all pools by investment objective and size.

Table 26

## Distribution of Asset Composition as of June 30, 1982

|                                      | <u>By Objective</u> |                     |                           | <u>By Size</u>           |                             |                           |
|--------------------------------------|---------------------|---------------------|---------------------------|--------------------------|-----------------------------|---------------------------|
|                                      | <u>All Pools</u>    | <u>Total Return</u> | <u>Income or Balanced</u> | <u>Over \$50 Million</u> | <u>\$10 to \$50 Million</u> | <u>Under \$10 Million</u> |
| <u>Percentage Invested in Stocks</u> |                     |                     |                           |                          |                             |                           |
| 90-100%                              | 1                   | 0                   | 1                         | 0                        | 0                           | 1                         |
| 80-90%                               | 2                   | 2                   | 0                         | 1                        | 1                           | 0                         |
| 70-80%                               | 18                  | 11                  | 7                         | 4                        | 13                          | 1                         |
| 60-70%                               | 34                  | 15                  | 19                        | 9                        | 18                          | 7                         |
| 50-60%                               | 57                  | 26                  | 31                        | 24                       | 18                          | 15                        |
| 40-50%                               | 41                  | 21                  | 20                        | 90                       | 19                          | 13                        |
| 30-40%                               | 28                  | 6                   | 22                        | 8                        | 13                          | 7                         |
| 0-30%                                | 37                  | 7                   | 30                        | 6                        | 18                          | 13                        |
| TOTAL                                | <u>218</u>          | <u>88</u>           | <u>130</u>                | <u>61</u>                | <u>100</u>                  | <u>57</u>                 |
| <u>Percentage Invested in Bonds</u>  |                     |                     |                           |                          |                             |                           |
| 90-100%                              | 1                   | 0                   | 1                         | 0                        | 0                           | 1                         |
| 80-90%                               | 0                   | 0                   | 0                         | 0                        | 0                           | 0                         |
| 70-80%                               | 2                   | 0                   | 2                         | 0                        | 1                           | 1                         |
| 60-70%                               | 5                   | 0                   | 5                         | 3                        | 0                           | 2                         |
| 50-60%                               | 9                   | 1                   | 8                         | 2                        | 5                           | 2                         |
| 40-50%                               | 34                  | 10                  | 24                        | 4                        | 15                          | 15                        |
| 30-40%                               | 57                  | 19                  | 38                        | 17                       | 21                          | 19                        |
| 20-30%                               | 58                  | 26                  | 32                        | 16                       | 30                          | 12                        |
| 10-20%                               | 41                  | 24                  | 17                        | 17                       | 22                          | 2                         |
| 0-10%                                | 11                  | 8                   | 3                         | 2                        | 6                           | 3                         |
| TOTAL                                | <u>218</u>          | <u>88</u>           | <u>130</u>                | <u>61</u>                | <u>100</u>                  | <u>57</u>                 |

Asset Diversification

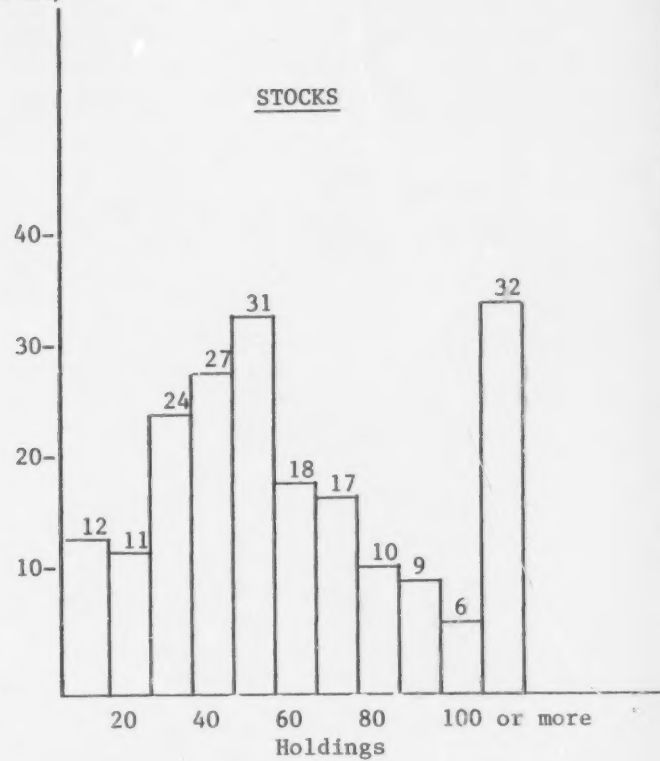
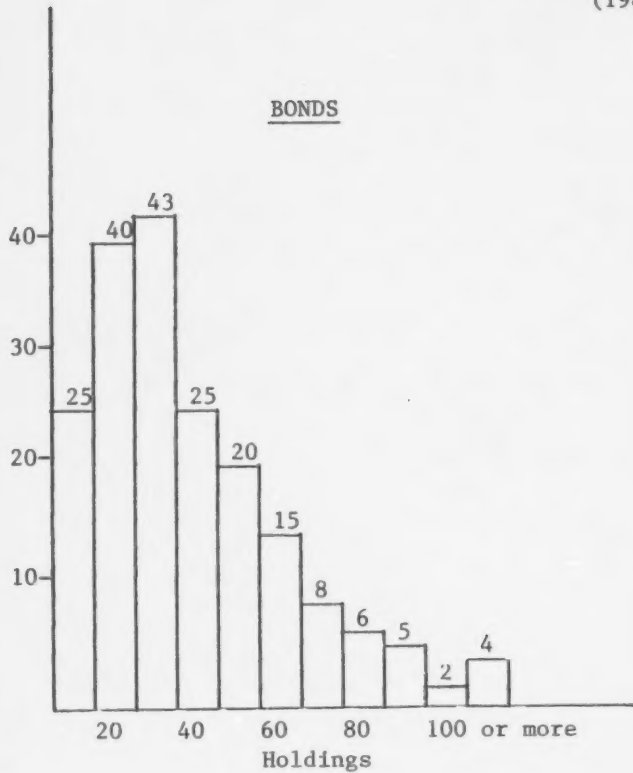
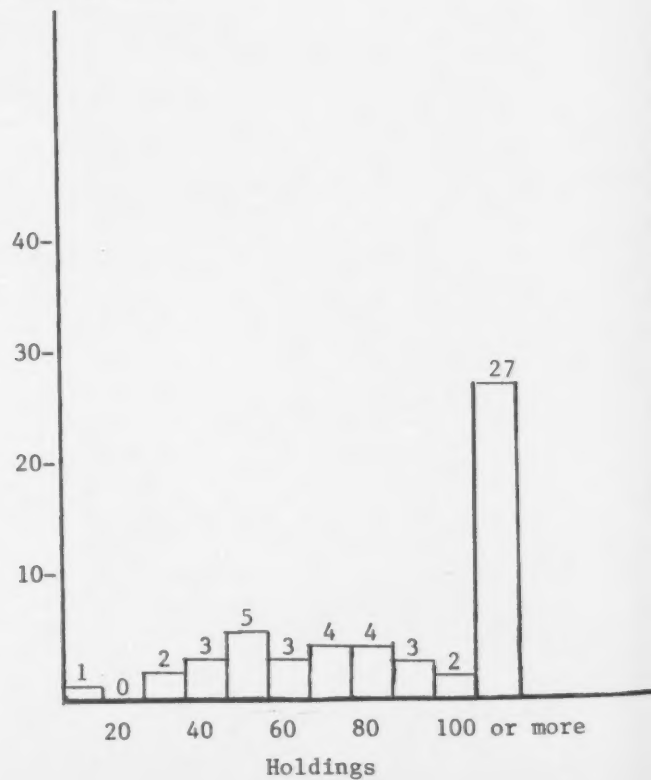
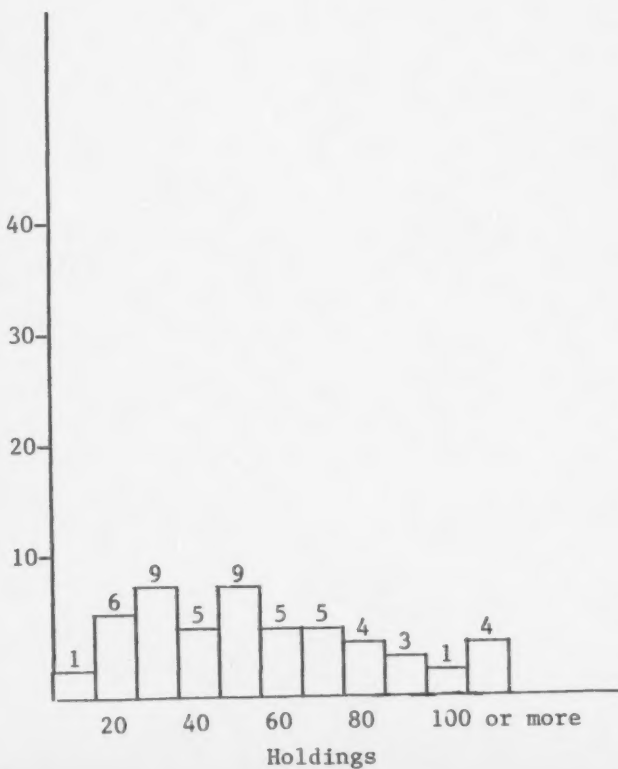
In general, investment pools tended to hold more positions in stocks than bonds. As shown in Table 27, the smaller groups had a lower ratio of the number of stocks to bonds. Also, total return pools tended to have stock positions (53 holdings) about twice their bond positions (25 holdings), and balanced pools tended to have stock positions about one and one-half times their stock positions.

The total distribution of bond and stock positions for all pools and for the different size categories is portrayed in Graph II on pages 30 and 31.

Table 27

Asset Diversification for Bonds and Stocks as of  
June 30, 1982

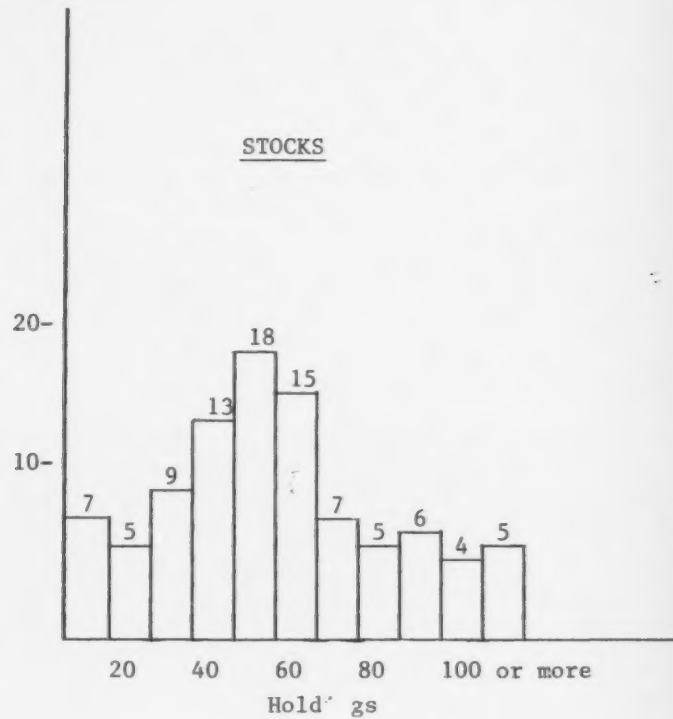
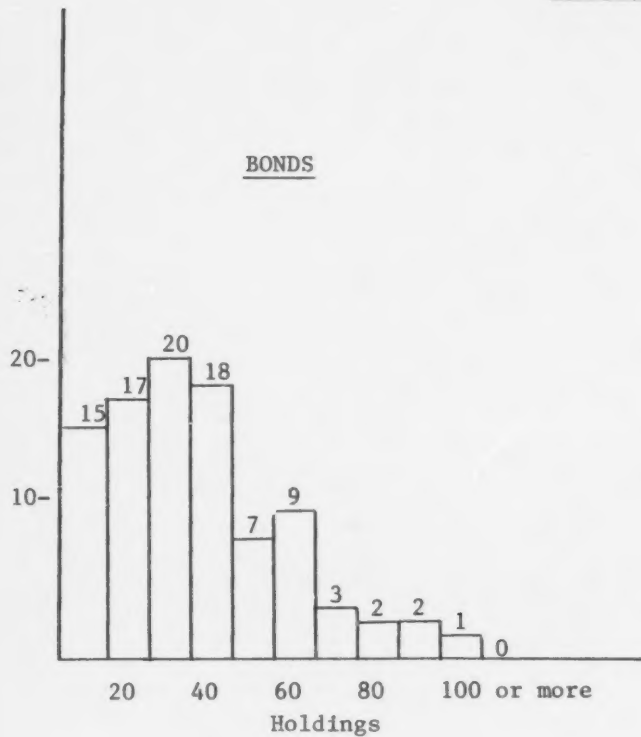
|                          | Median Number<br>of<br>Bonds Held | Median Number<br>of<br>Stocks Held |
|--------------------------|-----------------------------------|------------------------------------|
| All Pools                | 28                                | 49                                 |
| By Investment Objective: |                                   |                                    |
| Total Return             | 25                                | 53                                 |
| Balanced                 | 32                                | 47                                 |
| By Size:                 |                                   |                                    |
| Over \$50 million        | 45                                | 103                                |
| \$10 to 50 million       | 29                                | 49                                 |
| Under \$10 million       | 19                                | 31                                 |

GRAPH IIAsset Diversification  
(1981-82)OVER \$50 MILLION

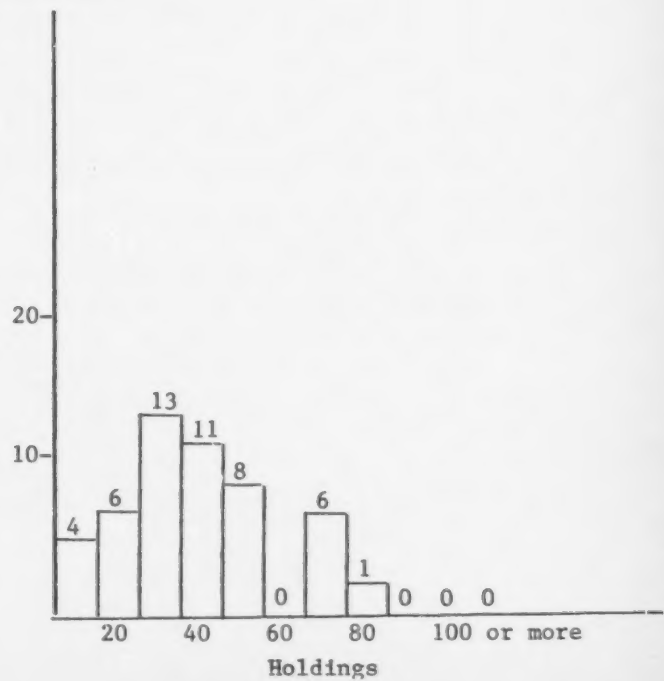
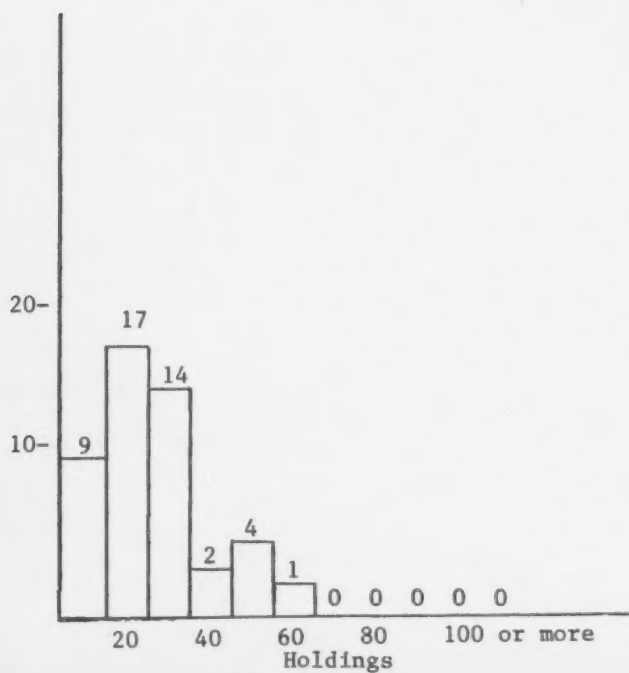


GRAPH II  
(Cont.)

Asset Diversification  
\$10-\$50 Million



Under \$10 Million



### Equity Price-Earnings Ratio - "P/E"

Institutions were asked on an optional basis to provide the price earnings ratio (P/E) for the equity portion of their investment pools as of June 30, 1982. The average P/E for 44 pools was 9.3 compared to 9.5 for the Dow Jones and 7.7 for the S&P 500.

### Noncontrollable Assets

Noncontrollable assets are those which, although included in investment pools, are not truly marketable or are not included in pools solely on their investment merit, e.g., investment in a dormitory, investment letter stock, donor-restricted stock, etc.

Of the 218 pools, 178 (82%) had noncontrollable assets of 5% or less, 22 had noncontrollable assets of between 5% and 15%, 12 had noncontrollable assets of between 15% and 25%, and 6 had noncontrollable assets of greater than 25%. Noncontrollable assets for all pools represented 2.9% of the total assets of the pools as of June 30, 1982.

## RISK MEASUREMENT AND RETURN

### Description

There presently remains considerable controversy as to whether superior investment managers do exist and hence can produce an incremental return relative to the amount of risk taken, or whether the only way above-average long-run return can be achieved is by assuming greater risks. Risk is defined as a greater variability in return. A particular risk measure now widely used is an index of relative volatility, which is also known by the Greek letter "beta." The beta calculation of risk is essentially a comparison between the movements of returns from the market as a whole.\*

Volatility as a measurement of risk was introduced into the Comparative Performance Study in 1975 and has been included since then. In calculating such statistical measures, reliability is higher when information is gathered over a long period. Although more accuracy would be achieved by using quarterly data, the data used in this study provide reasonably reliable results if there is adequate diversification of investment pool assets, and the asset composition return is similar to what might be expected. That is, stocks are more risky than bonds, and bonds are more risky than treasury bills. Correspondingly, in up-markets, stocks should do better and treasury bills worse; and in down-markets, just the opposite should occur.

In a regression analysis, an investment pool's beta measure is the percentage fluctuation that can be expected and therefore predicted based on the performance of the stock market. Generally, the S&P 500 Index is used as the market base. A beta of 1 means that a pool should move in unison with the market. If the market goes up 10%, the pool should go up 10%. A beta of more than 1, say 1.10, means the pool is 10% more volatile. When the market goes up, a more volatile pool should perform

\*Managing Risk in an Uncertain Era, Malkiel & Firstenberg, Princeton University Press, 1976.

better than the market; it should perform worse when the market goes down. On the other hand, a pool that is less volatile (lower beta) should not perform as well in an up-market and should not lose as much in a down-market. Any change in value will vary from that predicted by the beta measure if, and to the extent that, a pool is not thoroughly diversified and therefore exhibits distinct, unique characteristics not correlated to the market in general.

#### Observations

Table 28 shows beta coefficients calculated for the investment pools in this year's CPS and in previous years. College and university endowment funds appear to be invested for less volatility and risk than the market as a whole. One would expect their performance to be below that of the stock market as a whole in a period of a rising market, as was the case in fiscal 1975, 1976, 1979, 1980, and 1981, and above the stock market in a period of declining market, as was the case in fiscal 1977, 1978, and 1982. As shown in Table 29, total return pools are more volatile (greater beta) than balanced pools, and the larger the size of pools, the more volatile. This seems logical since total return pools and larger pools have greater stock components, and stocks have historically been more volatile than bonds.

Table 28

#### Comparative Performance Study Historic Beta of All Investment Pools

| <u>10 Years Ending June 30</u> | <u>10-Year Beta</u> |
|--------------------------------|---------------------|
| 1975                           | .69                 |
| 1976                           | .72                 |
| 1977                           | .71                 |
| 1978                           | .73                 |
| 1979                           | .72                 |
| 1980                           | .70                 |
| 1981                           | .72                 |
| 1982                           | .61                 |

Table 29

Beta Coefficients

|                              | <u>Ten Years</u><br><u>Ended June 30, 1982</u> |
|------------------------------|------------------------------------------------|
| By Investment Objective:     |                                                |
| Total Return Pools           | .69                                            |
| Balanced Pools               | .56                                            |
| By Size:                     |                                                |
| Over \$50 million            | .68                                            |
| \$10 to \$50 million         | .62                                            |
| Under \$10 million           | .52                                            |
| Comparative Indexes:         |                                                |
| Dow Jones Industrial Average | .84                                            |
| Salomon Brothers Bond Index  | -.04                                           |
| S&P 500                      | 1.00                                           |

Beta and Predictive Performance

The average portfolio beta of endowment pools can be used as a predictive tool to estimate the future performance of the endowment pool universe. Using the .61 ten-year beta of the average endowment pool in the 1982 CPS, the -11.76% one-year return of the S&P 500 as a representative proxy of the market, and the 13.41% average treasury bill return as a risk-free rate of return, the expected return for endowment pools in fiscal 1982 was -1.94%. This is described by the following equation:

$$1982 \text{ expected return} = 1982 \text{ risk-free rate} + \left[ \begin{array}{l} \text{beta} \\ \text{of all} \\ \text{pools} \end{array} \times \left[ \begin{array}{ll} 1982 & 1982 \\ \text{market} & \text{risk-} \\ \text{return} & \text{free} \\ & \text{rate} \end{array} \right] \right]$$

$$-1.94\% = 13.41\% + 0.61 \times (-11.76\% - 13.41\%)$$

The actual -0.93% return for all pools (see Table 4) is 101 basis points better than the expected -1.94% return. This latter figure is not very different from the -1.78% asset component estimated return described in Table 6. Differences between actual and expected returns could be portrayed as the value added by management.

STOCK AND BOND TURNOVERMethod of Calculation

Turnover, as reported in this study, is determined by dividing the lesser of stock purchases or sales by the average of the beginning and ending year market values of stocks. For example, a portfolio with \$80 million in stocks at June 30, 1981, and \$100 million at June 30, 1982, that purchased during the year \$25 million in stocks and sold \$18 million would have had a turnover of 20% -- \$18 million in sales divided by \$90 million. This same methodology is used for bond turnover.

### 1982 Stock Turnover

For all institutions, 1982 stock turnover of 28.0% remained at its highest level since NACUBO began gathering this data in 1974-75, as shown in Table 30. This is also the case when pools are grouped by investment objective or by size. In 1982, and in seven of the last eight years, turnover for total return pools has been greater than for balanced pools. Based on size, the smallest group had the least equity turnover in 1982 and also in six of the last seven years.

### 1982 Bond Turnover

This is only the fifth year NACUBO has been gathering data on bond turnover. For both 1978 and 1979, turnover of balanced pools was about twice the turnover of total return pools. In 1980 the reverse was the case: turnover of total return pools was twice that of balanced pools. In 1981 the turnover of both was equal, and in 1982 the turnover of total return pools was again greater. The larger the size group of pools, generally, the greater the turnover. This has proved a consistent pattern for all five years for the largest sized group. Pools over \$50 million in size had about two times the turnover of pools between \$10 and \$50 million in size, and pools between \$10 and \$50 million had greater turnover than pools under \$10 million--except in 1981 and in 1982, when the turnover of these two groups was about equal.

Table 30

|                          | <u>Stock Turnover</u>       |                             |                             |                             |                             |                             |                             |                             |                                    |
|--------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------------|
|                          | <u>Median Response</u>      |                             |                             |                             |                             |                             |                             |                             | 1980-81                            |
|                          | <u>1974-</u><br><u>1975</u> | <u>1975-</u><br><u>1976</u> | <u>1976-</u><br><u>1977</u> | <u>1977-</u><br><u>1978</u> | <u>1978-</u><br><u>1979</u> | <u>1979-</u><br><u>1980</u> | <u>1980-</u><br><u>1981</u> | <u>1981-</u><br><u>1982</u> | <u>Number</u><br><u>Responding</u> |
| All Pools                | 17.0%                       | 16.1%                       | 15.1%                       | 14.3%                       | 18.0%                       | 21.7%                       | 28.0%                       | 28.0%                       | 176                                |
| By Investment Objective: |                             |                             |                             |                             |                             |                             |                             |                             |                                    |
| Total Return Pools       | 17.4                        | 16.1                        | 15.1                        | 17.0                        | 24.3                        | 28.0                        | 38.0                        | 42.1                        | 70                                 |
| Balanced Pools           | 16.5                        | 15.8                        | 16.1                        | 13.5                        | 16.4                        | 20.0                        | 23.9                        | 23.0                        | 106                                |
| By Size:                 |                             |                             |                             |                             |                             |                             |                             |                             |                                    |
| Over \$50 million        | 19.7                        | 15.4                        | 15.0                        | 15.3                        | 20.5                        | 26.4                        | 28.5                        | 33.0                        | 45                                 |
| \$10 to \$50 million     | 17.0                        | 15.5                        | 20.8                        | 17.0                        | 19.0                        | 22.3                        | 30.0                        | 30.0                        | 86                                 |
| Under \$10 million       | 14.4                        | 18.0                        | 11.4                        | 12.0                        | 15.8                        | 18.0                        | 23.9                        | 22.2                        | 45                                 |
|                          | <u>Bond Turnover</u>        |                             |                             |                             |                             |                             |                             |                             |                                    |
| All Pools                |                             |                             |                             | 13.7                        | 15.5                        | 15.0                        | 15.8                        | 19.6                        | 171                                |
| By Investment Objective: |                             |                             |                             |                             |                             |                             |                             |                             |                                    |
| Total Return Pools       |                             |                             |                             | 9.6                         | 18.5                        | 26.4                        | 15.8                        | 27.4                        | 66                                 |
| Balanced Pools           |                             |                             |                             | 20.0                        | 33.8                        | 12.5                        | 15.8                        | 18.0                        | 105                                |
| By Size:                 |                             |                             |                             |                             |                             |                             |                             |                             |                                    |
| Over \$50 million        |                             |                             |                             | 28.4                        | 48.8                        | 26.0                        | 20.4                        | 34.9                        | 43                                 |
| \$10 to \$50 million     |                             |                             |                             | 12.4                        | 13.0                        | 14.0                        | 13.0                        | 18.9                        | 84                                 |
| Under \$10 million       |                             |                             |                             | 7.7                         | 10.9                        | 10.6                        | 14.8                        | 16.5                        | 44                                 |

Stock and Bond Turnover and Performance Implications

For 1982, the 25 pools with the highest stock turnover ratios outperformed those with the lowest ratios. In the prior year, the pools with the 25 highest and lowest turnover ratios had identical performance of 15.2%. In the five previous years, the highest turnover pools were the best performers. The 25 pools with the highest bond turnover underperformed the 25 pools with the lowest turnover by almost 2 percentage points. This year's and prior years' findings are shown in Table 31. The 1982 results of the 25 pools with the highest and lowest stock and bond turnover are shown in Tables 32 and 33, respectively.

Table 31

Performance Comparison of the 25 Pools with the Highest  
and Lowest Stock and Bond Turnover Percentages

Stock Pools

|      | <u>25 Highest</u> | <u>25 Lowest</u> | <u>Basis Point<br/>Difference</u> |
|------|-------------------|------------------|-----------------------------------|
| 1982 | -1.33%            | -3.03%           | 170                               |
| 1981 | 15.26             | 15.26            | 0                                 |
| 1980 | 12.90             | 10.38            | 252                               |
| 1979 | 11.23             | 10.16            | 107                               |
| 1978 | 3.71              | 1.69             | 202                               |
| 1977 | 4.60              | 3.29             | 131                               |
| 1976 | 9.84              | 8.26             | 158                               |

Bond Pools

| 1982 | -2.00 | -0.13 | -183 |
|------|-------|-------|------|
| 1981 | 12.45 | 10.70 | 175  |
| 1980 | 11.22 | 9.20  | 201  |
| 1979 | 10.47 | 8.21  | 226  |
| 1978 | 2.34  | 2.55  | -21  |



Table 32

Pools with the Highest and Lowest Equity Turnover Percentage\*  
for the One-Year Period Ending June 30, 1982,  
Ranked According to Average Total Return

| Highest Turnover                     |           |                             |                                    | Lowest Turnover                      |           |                             |                                    |
|--------------------------------------|-----------|-----------------------------|------------------------------------|--------------------------------------|-----------|-----------------------------|------------------------------------|
| Rank                                 | Code Name | 1982<br>Turnover<br>Percent | 1982<br>Average<br>Total<br>Return | Rank                                 | Code Name | 1982<br>Turnover<br>Percent | 1982<br>Average<br>Total<br>Return |
| 1                                    | COM-FD BD |                             | 10.98%                             | 1                                    | COM-FD BD |                             | 10.98%                             |
| 2                                    | C30       | 82.0%                       | 10.70                              | 2                                    | C81       | 0.3%                        | 9.75                               |
| 3                                    | LEH-KUHN  |                             | 9.04                               | 3                                    | E58       | 1.0                         | 9.60                               |
| 4                                    | SALOMON   |                             | 7.43                               | 4                                    | LEH-KUHN  |                             | 9.04                               |
| 5                                    | C99       | 82.5                        | 7.32                               | 5                                    | SALOMON   |                             | 7.43                               |
| 6                                    | C50       | 106.1                       | 3.02                               | 6                                    | E20       | 9.0                         | 2.68                               |
| 7                                    | E64       | 68.0                        | 2.30                               | 7                                    | C62       | 4.4                         | 2.58                               |
| 8                                    | C21       | 98.7                        | 2.23                               | 8                                    | C15       | 4.6                         | 1.36                               |
| 9                                    | E41       | 89.0                        | 1.77                               | 9                                    | C55       | 3.2                         | 1.05                               |
| 10                                   | E27       | 89.9                        | 1.10                               | 10                                   | E98       | 8.6                         | 0.98                               |
| 11                                   | C43       | 67.6                        | 0.67                               | 11                                   | C1        | 9.0                         | 0.31                               |
| 12                                   | E70       | 71.0                        | 0.52                               | 12                                   | E74       | 8.0                         | 0.05                               |
| 13                                   | C57       | 90.0                        | -0.81                              | 13                                   | C33       | 4.4                         | -0.60                              |
| 14                                   | E47       | 62.7                        | -1.22                              | 14                                   | C3        | 2.9                         | -0.86                              |
| 15                                   | E66       | 118.6                       | -1.24                              | 15                                   | E44       | 0                           | -1.24                              |
| 16                                   | C29       | 80.0                        | -1.30                              | 16                                   | E42       | 7.3                         | -1.32                              |
| 17                                   | C39       | 98.3                        | -1.52                              | 17                                   | C16       | 2.0                         | -1.38                              |
| 18                                   | C96       | 67.2                        | -1.52                              | 18                                   | C79       | 8.3                         | -1.62                              |
| 19                                   | E99       | 74.0                        | -2.45                              | 19                                   | E14       | 9.0                         | -4.33                              |
| 20                                   | E69       | 77.7                        | -3.00                              | 20                                   | E79       | 0                           | -5.26                              |
| 21                                   | C14       | 121.0                       | -3.74                              | 21                                   | E21       | 1.0                         | -7.24                              |
| 22                                   | C76       | 100.5                       | -4.01                              | 22                                   | C4        | 4.4                         | -8.62                              |
| 23                                   | C2        | 92.0                        | -4.38                              | 23                                   | E12       | 8.8                         | -8.97                              |
| 24                                   | E81       | 87.3                        | -4.72                              | 24                                   | E3        | 5.2                         | -10.64                             |
| 25                                   | C42       | 99.0                        | -5.50                              | 25                                   | E101      | 7.6                         | -10.85                             |
| 26                                   | C66       | 72.0                        | -6.28                              | 26                                   | D-JONES   |                             | -11.70                             |
| 27                                   | C98       | 66.7                        | -7.28                              | 27                                   | SP 500    |                             | -11.76                             |
| 28                                   | D-JONES   |                             | -11.70                             | 28                                   | C77       | 4.1                         | -12.40                             |
| 29                                   | SP 500    |                             | -11.76                             | 29                                   | SP-IND    |                             | -12.64                             |
| 30                                   | SP-IND    |                             | -12.64                             | 30                                   | COM-FD EQ |                             | -13.25                             |
| 31                                   | COM-FD EQ |                             | -13.25                             | 31                                   | E26       | 8.2                         | -14.05                             |
| 32                                   | C27       | 75.7                        | -13.81                             | 32                                   | E112      | 3.5                         | -14.72                             |
| Arithmetic<br>Average of<br>25 Pools |           |                             |                                    | Arithmetic<br>Average of<br>25 Pools |           |                             |                                    |
|                                      |           | 85.5%                       | -1.33%                             |                                      |           | 5.0%                        | -3.03%                             |

\*NOTE: All pools included in this analysis had an equity component of at least 35%.

Table 33

Pools with the Highest and Lowest Bond Turnover Percentage\*  
for the One-Year Period Ending June 30, 1982,  
Ranked According to Average Total Return

| Highest Turnover                     |           |                             |                                    | Lowest Turnover                      |           |                             |                                    |
|--------------------------------------|-----------|-----------------------------|------------------------------------|--------------------------------------|-----------|-----------------------------|------------------------------------|
| Rank                                 | Code Name | 1982<br>Turnover<br>Percent | 1982<br>Average<br>Total<br>Return | Rank                                 | Code Name | 1982<br>Turnover<br>Percent | 1982<br>Average<br>Total<br>Return |
| 1                                    | C6        | 132.6%                      | 13.16%                             | 1                                    | C69       | 0%                          | 15.69%                             |
| 2                                    | COM-FD BD |                             | 10.98                              | 2                                    | C59       | 0.4                         | 15.22                              |
| 3                                    | LEH-KUHN  |                             | 9.04                               | 3                                    | COM-FD BD |                             | 10.98                              |
| 4                                    | SALOMON   |                             | 7.43                               | 4                                    | LEH-KUHN  |                             | 9.04                               |
| 5                                    | E110      | 75.0                        | 5.16                               | 5                                    | SALOMON   |                             | 7.43                               |
| 6                                    | E84       | 356.0                       | 3.80                               | 6                                    | C38       | 0                           | 5.04                               |
| 7                                    | C54       | 198.0                       | 2.56                               | 7                                    | C10       | 0                           | 4.98                               |
| 8                                    | E9        | 141.3                       | 1.83                               | 8                                    | C61       | 0.7                         | 4.63                               |
| 9                                    | E27       | 71.8                        | 1.10                               | 9                                    | C88       | 0                           | 4.43                               |
| 10                                   | C103      | 149.8                       | -0.15                              | 10                                   | E113      | 1.0                         | 3.62                               |
| 11                                   | E31       | 92.7                        | -0.47                              | 11                                   | C19       | 1.0                         | 2.46                               |
| 12                                   | E57       | 354.0                       | -0.57                              | 12                                   | C95       | 0                           | 1.40                               |
| 13                                   | E73       | 123.8                       | -0.79                              | 13                                   | E98       | 0                           | 0.98                               |
| 14                                   | E47       | 200.0                       | -1.22                              | 14                                   | C73       | 0                           | 0.70                               |
| 15                                   | E2        | 71.4                        | -1.24                              | 15                                   | E70       | 0                           | 0.52                               |
| 16                                   | C29       | 90.0                        | -1.30                              | 16                                   | E74       | 1.0                         | 0.05                               |
| 17                                   | C39       | 187.5                       | -1.52                              | 17                                   | C91       | 0                           | -0.65                              |
| 18                                   | E55       | 111.0                       | -3.48                              | 18                                   | C41       | 0                           | -0.87                              |
| 19                                   | E17       | 91.0                        | -3.65                              | 19                                   | C47       | 0                           | -0.95                              |
| 20                                   | E77       | 170.2                       | -4.91                              | 20                                   | E39       | 0.6                         | -1.20                              |
| 21                                   | E45       | 79.5                        | -5.69                              | 21                                   | C23       | 0                           | -1.75                              |
| 22                                   | E108      | 100.0                       | -5.70                              | 22                                   | C32       | 0                           | -2.66                              |
| 23                                   | C66       | 151.0                       | -6.28                              | 23                                   | E79       | 0                           | -5.26                              |
| 24                                   | E76       | 169.0                       | -7.37                              | 24                                   | E107      | 0                           | -7.37                              |
| 25                                   | E38       | 180.0                       | -7.70                              | 25                                   | C4        | 0.2                         | -8.62                              |
| 26                                   | C87       | 116.0                       | -7.96                              | 26                                   | E12       | 0                           | -8.97                              |
| 27                                   | C102      | 149.8                       | -8.68                              | 27                                   | C48       | 0                           | -10.02                             |
| 28                                   | C25       | 315.0                       | -9.03                              | 28                                   | D-JONES   |                             | -11.70                             |
| 29                                   | D-JONES   |                             | -11.70                             | 29                                   | SP 500    |                             | -11.76                             |
| 30                                   | SP 500    |                             | -11.76                             | 30                                   | SP-IND    |                             | -12.64                             |
| 31                                   | SP-IND    |                             | -12.64                             | 31                                   | COM-FD EQ |                             | -13.25                             |
| 32                                   | COM-FD EQ |                             | -13.25                             | 32                                   | E75       | 0.1                         | -14.53                             |
| Arithmetic<br>Average of<br>25 Pools |           |                             |                                    | Arithmetic<br>Average of<br>25 Pools |           |                             |                                    |
|                                      |           | 155.0%                      | -2.00%                             |                                      |           | 0.2%                        | -0.13%                             |

\*NOTE: All pools included in this analysis had a bond component of at least 20%.

INVESTMENT ADVISORY FEES AND DISCRETIONInvestment Fees

The median fee as a percentage of average market value for 183 responding institutions as shown in Table 34 was 0.30% and the average was 0.33%. (This represents over 95% of the 189 pools which use outside advisors; 29 pools are managed internally.) For those managers who have discretion and those who do not have discretion, economies of scale do seem to come into play as there is a differentiation in fees among the largest, middle-sized, and smallest pools.

Investment Discretion

Of 183 institutions, 16% indicated that they do not give their advisor discretion, and 84% indicated that they do give discretion. The results in Table 34 are consistent with those of prior studies, in that those institutions which do not give discretion pay less than those which do. Table 35 shows the range of investment pool advisory fee responses.

Table 34

Advisory Fees Paid in 1981-82 as a Percentage of Average  
Market Value, in Terms of Investment Discretion

|                               | <u>Number of<br/>Institutions</u> | <u>Arithmetic<br/>Average</u> | <u>Median<br/>Response</u> |
|-------------------------------|-----------------------------------|-------------------------------|----------------------------|
| <u>Give Discretion</u>        |                                   |                               |                            |
| Over \$50 million             | 44                                | .31                           | .30                        |
| \$10 to \$50 million          | 68                                | .35                           | .32                        |
| Under \$10 million            | 41                                | .39                           | .38                        |
| Subtotal                      | <u>153</u>                        | <u>.35</u>                    | <u>.32</u>                 |
| <u>Do Not Give Discretion</u> |                                   |                               |                            |
| Over \$50 million             | 5                                 | .17                           | .15                        |
| \$10 to \$50 million          | 19                                | .23                           | .24                        |
| Under \$10 million            | 6                                 | .39                           | .42                        |
| Subtotal                      | <u>30</u>                         | <u>.25</u>                    | <u>.26</u>                 |
| TOTAL                         | <u>183</u>                        | <u>.33</u>                    | <u>.30</u>                 |

Table 35

Range of Responses of Investment Pool Advisory  
Fees Paid as a Percentage of Average Market Value in 1981-82

| <u>Investment Pools with Manager Discretion</u><br>(in millions) |                  |                 |                  |                  |                   |                   |                  |
|------------------------------------------------------------------|------------------|-----------------|------------------|------------------|-------------------|-------------------|------------------|
|                                                                  | <u>Under \$5</u> | <u>\$5-\$10</u> | <u>\$10-\$25</u> | <u>\$25-\$50</u> | <u>\$50-\$100</u> | <u>Over \$100</u> | <u>All Pools</u> |
| Less than .10%                                                   | 0                | 0               | 0                | 1                | 0                 | 0                 | 1                |
| .10 to .15%                                                      | 0                | 0               | 0                | 0                | 0                 | 1                 | 1                |
| .15 to .20%                                                      | 2                | 3               | 7                | 7                | 2                 | 7                 | 28               |
| .20 to .25%                                                      | 4                | 0               | 7                | 3                | 3                 | 3                 | 20               |
| .25 to .30%                                                      | 2                | 4               | 7                | 1                | 3                 | 4                 | 21               |
| .30 to .35%                                                      | 3                | 1               | 6                | 2                | 4                 | 5                 | 21               |
| .35 to .40%                                                      | 1                | 3               | 5                | 1                | 2                 | 1                 | 13               |
| .40 to .45%                                                      | 3                | 3               | 3                | 3                | 2                 | 1                 | 15               |
| .45 to .50%                                                      | 2                | 1               | 3                | 1                | 5                 | 0                 | 12               |
| .50 to .60%                                                      | 2                | 2               | 4                | 1                | 0                 | 0                 | 9                |
| .60 to .70%                                                      | 1                | 2               | 3                | 0                | 1                 | 0                 | 7                |
| More than .70%                                                   | <u>1</u>         | <u>1</u>        | <u>0</u>         | <u>3</u>         | <u>0</u>          | <u>0</u>          | <u>5</u>         |
| TOTAL                                                            | 21               | 20              | 45               | 23               | 22                | 22                | 153              |

| <u>Investment Pools Without Manager Discretion</u> |          |          |          |          |          |          |          |
|----------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|
| Less than .10%                                     | 0        | 0        | 1        | 2        | 1        | 0        | 4        |
| .10 to .15%                                        | 0        | 0        | 0        | 0        | 0        | 2        | 2        |
| .15 to .20%                                        | 0        | 0        | 1        | 4        | 0        | 0        | 5        |
| .20 to .25%                                        | 0        | 0        | 2        | 1        | 1        | 0        | 4        |
| .25 to .30%                                        | 1        | 0        | 3        | 2        | 1        | 0        | 7        |
| .30 to .35%                                        | 1        | 0        | 0        | 1        | 0        | 0        | 2        |
| .35 to .40%                                        | 0        | 0        | 1        | 0        | 0        | 0        | 1        |
| .40 to .45%                                        | 3        | 1        | 0        | 0        | 0        | 0        | 4        |
| .45 to .50%                                        | 0        | 0        | 0        | 1        | 0        | 0        | 1        |
| .50 to .60%                                        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| .60 to .70%                                        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| More than .70%                                     | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| TOTAL                                              | 5        | 1        | 8        | 11       | 3        | 2        | 30       |

| <u>All Pools</u> |          |          |          |          |          |          |          |
|------------------|----------|----------|----------|----------|----------|----------|----------|
| Less than .10%   | 0        | 0        | 1        | 3        | 1        | 0        | 5        |
| .10 to .15%      | 0        | 0        | 0        | 0        | 0        | 3        | 3        |
| .15 to .20%      | 2        | 3        | 8        | 11       | 2        | 7        | 33       |
| .20 to .25%      | 4        | 0        | 9        | 4        | 4        | 3        | 24       |
| .25 to .30%      | 3        | 4        | 10       | 3        | 4        | 4        | 28       |
| .30 to .35%      | 4        | 1        | 6        | 3        | 4        | 5        | 23       |
| .35 to .40%      | 1        | 3        | 6        | 1        | 2        | 1        | 14       |
| .40 to .45%      | 6        | 4        | 3        | 3        | 2        | 1        | 19       |
| .45 to .50%      | 2        | 1        | 3        | 2        | 5        | 0        | 13       |
| .50 to .60%      | 2        | 2        | 4        | 1        | 0        | 0        | 9        |
| .60 to .70%      | 1        | 2        | 3        | 0        | 1        | 0        | 7        |
| More than .70%   | <u>1</u> | <u>1</u> | <u>0</u> | <u>3</u> | <u>0</u> | <u>0</u> | <u>5</u> |
| TOTAL            | 26       | 21       | 53       | 34       | 25       | 24       | 183      |

## SECTION II -- ENDOWMENT CHARACTERISTICS

### INTRODUCTION

As part of the ongoing Comparative Performance Study, NACUBO has built a data base of information concerning endowment funds and characteristics. Section II of this report includes information concerning endowment gift giving, endowment wealth, principal and income, spending, investment and custodial matters, option writing, venture capital, and the like.

### GENERAL INFORMATION

#### Fiscal Year

Of the 194 institutions responding, 165 (85%) have fiscal years ending June 30; the next most frequent responses were the last days of May and August with 14 and 8, respectively. Three institutions used September, two July, one March, and one December.

#### Endowment Distribution of Participants

The distribution of the 194 institutions reporting endowment size, inclusive of life income and similar funds, is categorized by the 78% independent and 22% public institutions in Table 36.

Table 36

#### 1982 Survey Participants Endowment Size Distribution of 192 Independent and Public Institutions

|                            | <u>Independent</u> | <u>Public</u> | <u>Total</u> | <u>Percentage<br/>of 194<br/>Answering</u> |
|----------------------------|--------------------|---------------|--------------|--------------------------------------------|
| Greater than \$100 million | 32                 | 5             | 37           | 19%                                        |
| \$50 to \$100 million      | 23                 | 3             | 26           | 13                                         |
| \$25 to \$50 million       | 29                 | 10            | 39           | 20                                         |
| \$10 to \$25 million       | 41                 | 15            | 56           | 29                                         |
| \$5 to \$10 million        | 14                 | 5             | 19           | 10                                         |
| Under \$5 million          | <u>9</u>           | <u>8</u>      | <u>17</u>    | <u>9</u>                                   |
| TOTAL                      | <u>148</u>         | <u>46</u>     | <u>194</u>   | <u>100%</u>                                |

It is interesting to note that the distribution by asset size of those reporting in the 1982 survey is markedly different from that of the 1974 survey as shown in Table 37. In the 1974 through 1982 surveys, the percentage of small institutions participating (those with market values under \$10 million in size at the end of each fiscal year) declined from 43% to 19%. At the same time, the number of institutions with larger endowments (those over \$50 million) increased from 22% to 32%.

Table 37

Endowment Size Percentage Distribution of the  
Surveys from 1974 through 1982

|                           | <u>1974</u> | <u>1975</u> | <u>1976</u> | <u>1977</u> | <u>1978</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> |
|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Greater than \$50 million | 22%         | 24%         | 29%         | 32%         | 33%         | 34%         | 34%         | 37%         | 32%         |
| \$10 to \$50 million      | 35          | 36          | 42          | 41          | 42          | 46          | 44          | 43          | 49          |
| Under \$10 million        | <u>43</u>   | <u>40</u>   | <u>29</u>   | <u>27</u>   | <u>25</u>   | <u>20</u>   | <u>22</u>   | <u>20</u>   | <u>19</u>   |
| TOTAL                     | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        | 100%        |
| Number Participating      | 145         | 147         | 138         | 148         | 144         | 147         | 176         | 192         | 194         |

Life Income Funds

Life income funds are those funds the income of which does not flow through to the institution during the lifetime of the donor or beneficiary, yet the principal of which has been designated as a remainder to the institution.

In Table 3 (page 3), the dollar amount of life income funds for each institution reporting such information is indicated. The total market value at June 30, 1982, of life income funds of the 138 responding that they had such funds was \$622 million. The 1978 survey indicated that there seemed to be major practical differences among institutions in regard to both life income fund investing and financial statement reporting. Of those institutions indicating that they had such funds, about one-third combined these funds with their endowment for investment purposes and about one-half for financial reporting purposes.

To the extent that institutions for financial report purposes include life income funds with endowment funds, wealth probably is being overstated since such assets are not currently earning revenue for the support of the institution.

Funds Held in Trust by Others

Of the assets reported in Table 3, a number of institutions include funds held in trust by others when reporting. Table 38 shows an alphabetical listing of the life income and endowment assets included in Table 3 that are not held by the respective institution.



Table 38

Funds Held in Trust by Others -- Endowment and Life Income  
Fund Assets as of June 30, 1982  
(\$000 omitted)

| <u>Institution</u>               | <u>Life Income<br/>Funds</u> | <u>Endowment<br/>Funds</u> |
|----------------------------------|------------------------------|----------------------------|
| Alma College                     |                              | \$ 959                     |
| Baylor College of Medicine       |                              | 1,583                      |
| Baylor University                | \$ 445                       | 8,086                      |
| Boston University                |                              | 980                        |
| Brandeis University              | 162                          | 1,194                      |
| Brown University                 |                              | 987                        |
| Bryant College                   | 341                          |                            |
| Bucknell University              |                              | 770                        |
| Chapman College                  | 633                          |                            |
| Colgate University               | 2,478                        |                            |
| Cornell College                  |                              | 437                        |
| Drake University                 |                              | 20                         |
| Drew University                  |                              | 358                        |
| Franklin & Marshall College      |                              | 31                         |
| Furman University                | 233                          |                            |
| Georgetown University            |                              | 309                        |
| Grinnell College                 |                              | 665                        |
| Hope College                     |                              | 122                        |
| Indiana University               |                              | 775                        |
| Mercer University                |                              | 6,787                      |
| Middlebury College               |                              | 880                        |
| Newberry College                 |                              | 20                         |
| Otterbein College                |                              | 139                        |
| Pomona College                   |                              | 1,181                      |
| Rensselaer Polytechnic Institute |                              | 17                         |
| St. Louis University             |                              | 485                        |
| St. Norbert College              |                              | 5,735                      |
| Southern Methodist University    |                              | 25,234                     |
| Southwestern at Memphis          | 150                          | 23,794                     |
| Stanford University              | 26,814                       | 19,227                     |
| University of Arkansas           | 112                          |                            |
| University of Chicago            | 1,200                        |                            |
| University of Cincinnati         | 1,933                        | 39,268                     |
| University of Denver             | 557                          | 696                        |
| University of Miami              |                              | 538                        |
| University of Puget Sound        | 630                          | 96                         |
| University of Richmond           |                              | 5,813                      |
| University of Santa Clara        |                              | 117                        |
| Vanderbilt University            | 5,166                        |                            |
| Wellesley College                | 769                          | 952                        |
| Wesleyan University              | 518                          |                            |

### Non-Security Assets

One hundred and seventeen institutions reported the portion of their total endowment invested in non-security assets. Aggregate responses are shown in Table 39. The composition of such assets varies among institutions, but typically this segment of the endowment contains employee mortgages, which may be at "incentive rates" related to employment, and plant and facilities assets. The earnings from such assets are not typical, however, since they usually are set by the administration or the institution's trustees. In such instances, the return would constitute interest in the case of employee mortgages, room rent in the case of dormitories, transfer charges in the case of heating facilities, etc. The point to be made in regard to financial implications is that an institution with a heavy endowment commitment in non-security assets probably is less flexible in terms of its investment alternatives. Where non-security assets represent a large portion of the total endowment, "true wealth" may be overstated.

Table 39

#### Non-Security Assets as a Percentage of Total Endowment\*

| Non-Security<br>Assets as a<br>Percentage of<br>Endowment | Over \$50<br>Million | \$10-\$50<br>Million | Under \$10<br>Million | Independent<br>Institutions | Public<br>Institutions | All<br>Institutions |
|-----------------------------------------------------------|----------------------|----------------------|-----------------------|-----------------------------|------------------------|---------------------|
| Less than 1%                                              | 11                   | 11                   | 3                     | 20                          | 5                      | 25                  |
| 1 to 2%                                                   | 3                    | 9                    | 1                     | 12                          | 1                      | 13                  |
| 2 to 2.5%                                                 | 2                    | 4                    | 0                     | 6                           | 0                      | 6                   |
| 2.5 to 3%                                                 | 1                    | 4                    | 2                     | 5                           | 2                      | 7                   |
| 3 to 3.5%                                                 | 2                    | 1                    | 0                     | 1                           | 2                      | 3                   |
| 3.5 to 5%                                                 | 2                    | 5                    | 1                     | 8                           | 0                      | 8                   |
| 5 to 6.5%                                                 | 4                    | 2                    | 0                     | 6                           | 0                      | 6                   |
| 6.5 to 8%                                                 | 3                    | 4                    | 0                     | 4                           | 3                      | 7                   |
| 8 to 10%                                                  | 4                    | 2                    | 1                     | 5                           | 2                      | 7                   |
| 10 to 12.5%                                               | 5                    | 4                    | 1                     | 8                           | 2                      | 10                  |
| 12.5 to 15%                                               | 5                    | 2                    | 1                     | 6                           | 2                      | 8                   |
| 15 to 20%                                                 | 2                    | 5                    | 0                     | 6                           | 1                      | 7                   |
| 20 to 25%                                                 | 0                    | 1                    | 2                     | 3                           | 0                      | 3                   |
| Greater than<br>25%                                       | <u>1</u>             | <u>3</u>             | <u>3</u>              | <u>6</u>                    | <u>1</u>               | <u>7</u>            |
| TOTAL                                                     | <u>45</u>            | <u>57</u>            | <u>15</u>             | <u>96</u>                   | <u>21</u>              | <u>117</u>          |
| Median<br>Response                                        | 3.3%                 | 3.9%                 | 4.4%                  | 3.3%                        | 4.0%                   | 3.5%                |

\*Including life income funds.

All but six institutions indicated they carry their non-security assets at book value. Three carry their assets at appraised value, one carries certain assets at book and others at appraised value, one carries academic assets at book and other non-security assets at appraised value, and another carries such assets at the present value of future expected cash streams.

#### Noncontrollable Assets

Seventy-seven institutions indicated they had noncontrollable assets, as shown in Table 40. Of those reporting noncontrollable assets, those under \$10 million had the greatest amount of noncontrollable assets.

Table 40

#### Noncontrollable Assets as a Percentage of Total Endowment\*

| <u>Percentage of</u> | <u>Over \$50</u> | <u>\$10-\$50</u> | <u>Under \$10</u> | <u>Independent</u>  | <u>Public</u>       | <u>All</u>          |
|----------------------|------------------|------------------|-------------------|---------------------|---------------------|---------------------|
| <u>Endowment</u>     | <u>Million</u>   | <u>Million</u>   | <u>Million</u>    | <u>Institutions</u> | <u>Institutions</u> | <u>Institutions</u> |
| Less than 1%         | 9                | 18               | 0                 | 24                  | 3                   | 27                  |
| 1 to 2%              | 5                | 7                | 0                 | 8                   | 4                   | 12                  |
| 2 to 2.5%            | 1                | 3                | 0                 | 3                   | 1                   | 4                   |
| 2.5 to 3%            | 2                | 1                | 1                 | 2                   | 2                   | 4                   |
| 3 to 3.5             | 1                | 0                | 2                 | 3                   | 0                   | 3                   |
| 3.5 to 5%            | 3                | 3                | 1                 | 5                   | 2                   | 7                   |
| 5 to 6.5             | 2                | 1                | 2                 | 5                   | 0                   | 5                   |
| 6.5 to 8%            | 1                | 0                | 0                 | 1                   | 0                   | 1                   |
| 8 to 10%             | 0                | 2                | 1                 | 2                   | 1                   | 3                   |
| 10 to 12.5%          | 0                | 1                | 0                 | 0                   | 1                   | 1                   |
| 12.5 to 15%          | 1                | 1                | 1                 | 3                   | 0                   | 3                   |
| 15 to 20%            | 1                | 2                | 1                 | 4                   | 0                   | 4                   |
| 20 to 25%            | 0                | 0                | 1                 | 1                   | 0                   | 1                   |
| Greater than<br>25%  | <u>0</u>         | <u>1</u>         | <u>1</u>          | <u>2</u>            | <u>0</u>            | <u>2</u>            |
| TOTAL                | <u>26</u>        | <u>40</u>        | <u>11</u>         | <u>63</u>           | <u>14</u>           | <u>77</u>           |
| Median<br>Response   | 2.2%             | 1.7%             | 7.5%              | 2.5%                | 5.4%                | 2.5%                |

\*Including life income funds.

#### GROWTH IN ENDOWMENT

##### Endowment Growth and Real Growth

The decreased size of the average endowment fund in 1982 of -1.4% appears to be the result of the sharp decline in equity securities and more moderate depreciation in the bond security markets, despite new gifts added to endowment. An approximation of endowment growth can be made for the nine-year period ending June 30, 1982. This is portrayed in Table 41 as the NACUBO Endowment Wealth Index ("NEWI"). As a group, NEWI assets at

June 30, 1982, have increased almost 40% since June 30, 1973, the first year NACUBO began to gather this data. However, in real terms, taking inflation into account, endowment funds since 1973 have actually declined in purchasing power 36.96% based on the Consumer Price Index ("CPI") and about 31.63% based on the Higher Education Price Index ("HEPI"). To help put this into perspective, Table 41 compares the S&P 500 Index, the Dow Jones Industrial Average, the Salomon Brothers High-Grade Bond Index, and endowment funds both before and after inflation. The NEWI fund figures are adjusted by both the CPI and the HEPI.

Table 41

Nine-Year Appreciation Comparison of Indexes  
Endowment Wealth ("NEWI") Before and After Inflation\*

| Fiscal Year<br>June 30         | Dow<br>Jones | S&P 500 | Salomon<br>Brothers | NACUBO<br>Endowment<br>Wealth<br>Index<br>("NEWI") | Real<br>NEWI<br>Based On<br>CPI | Real<br>NEWI<br>Based On<br>HEPI* |
|--------------------------------|--------------|---------|---------------------|----------------------------------------------------|---------------------------------|-----------------------------------|
| July 1, 1973                   | 891.71       | 104.26  | 93.70               | 100.00                                             | 100.00                          | 100.00                            |
| 1974                           | 802.41       | 86.00   | 80.53               | 83.30                                              | 76.49                           | 77.48                             |
| 1975                           | 878.99       | 95.19   | 85.26               | 91.05                                              | 75.19                           | 78.28                             |
| 1976                           | 1002.78      | 104.28  | 86.82               | 98.52                                              | 75.96                           | 79.46                             |
| 1977                           | 916.30       | 100.48  | 92.43               | 102.36                                             | 74.60                           | 77.52                             |
| 1978                           | 818.95       | 95.53   | 84.64               | 103.79                                             | 70.82                           | 73.67                             |
| 1979                           | 841.98       | 102.91  | 83.15               | 112.09                                             | 68.94                           | 73.80                             |
| 1980                           | 867.92       | 114.24  | 73.23               | 122.85                                             | 66.11                           | 73.60                             |
| 1981                           | 976.88       | 131.24  | 56.43               | 139.31                                             | 68.46                           | 76.22                             |
| 1982                           | 811.93       | 109.61  | 53.33               | 137.36                                             | 63.04                           | 68.37                             |
| 9-Year<br>Percentage<br>Change | 8.95%        | 5.13%   | -43.08%             | 37.36%                                             | -36.96%                         | -31.63%                           |

\*Readers may note that figures for CPI have been changed retroactively to reflect new calculation bases.

\*\*HEPI (Higher Education Price Index) figures provided by D. Kent Halstead.

The table shows that the rebound from the low 1974 equity markets through June 1981 reversed itself sharply in fiscal 1982. The bond market, as represented by the Salomon Brothers Index, is at its lowest level. Were it not for gifts to endowment, growth would be estimated to be relatively flat. Even with the strong support from gift additions, educational institutions are far from whole. That is, \$100 of endowment at July 1, 1973, would have the purchasing power at June 30, 1982, of only \$63.04 based on the CPI and \$68.37 based on the HEPI. Stated another way, the \$137.36 of endowment would have to rise approximately 60% and 45%, respectively (to \$217.89 based on the CPI or \$200.91 based on the HEPI), depending upon which index was considered more representative, to maintain 1973 purchasing power in 1982. (Table 42 compares the two indexes for the past 11 years.) This devastating loss in purchasing power is being felt through the college and university world and helps explain some of the more recent fiscal problems being experienced by many endowed institutions, especially those that rely more heavily on their endowment to meet current operating expenses. It is not surprising that many institutions have recently undertaken major fund drives to restore the purchasing power of their endowments.

Table 42

Year-to-Year Percentage Change in the  
CPI and HEPI

| <u>Fiscal Year</u> | <u>CPI</u> | <u>Year-to-Year<br/>Percentage Change</u> | <u>HEPI</u> | <u>Year-to-Year<br/>Percentage Change</u> |
|--------------------|------------|-------------------------------------------|-------------|-------------------------------------------|
| 1971               | 100.0      | 5.2%                                      | 100.0       | 6.4%                                      |
| 1972               | 103.6      | 3.6                                       | 105.6       | 5.6                                       |
| 1973               | 107.7      | 4.0                                       | 111.2       | 5.3                                       |
| 1974               | 117.3      | 8.9                                       | 119.1       | 7.1                                       |
| 1975               | 130.4      | 11.2                                      | 129.2       | 8.6                                       |
| 1976               | 139.6      | 7.1                                       | 137.8       | 6.6                                       |
| 1977               | 147.7      | 5.8                                       | 146.7       | 6.5                                       |
| 1978               | 157.7      | 6.8                                       | 156.5       | 6.7                                       |
| 1979               | 174.9      | 10.9                                      | 168.7       | 7.8                                       |
| 1980               | 199.9      | 14.3                                      | 185.4       | 9.9                                       |
| 1981               | 218.9      | 9.5                                       | 203.6       | 9.8                                       |
| 1982               | 234.4      | 7.1                                       | 223.8       | 9.9                                       |

Fiscal 1982 Endowment

The 194 institutions reporting in the 1982 survey indicated that their total market value as of June 30, 1982, decreased approximately 1.4% in value to \$17.5 billion from June 30, 1981. This figure included some \$622 million in life income fund assets. As shown in Table 43, the increase in asset value or wealth as represented by the median institution was greater for public institutions than for independent institutions. Those institutions classified as under \$10 million in size had the greatest increase, followed by the \$10-\$50 million group, and then the over \$50 million group. This seems logical since the larger the endowment group the greater the exposure to stocks, as detailed in Section I. The "wealth" percentage is not a measure of investment performance, as it does not take into account withdrawals from, or additions to, endowment. The median yield from endowment, excluding life income funds, was slightly greater for public institutions, and the larger the endowment group the lower the reported yield. This latter observation is consistent with the lower bond mix of endowment pools as the size of the endowment increased, which was also noted in Section I.

Table 43

Endowment Size, Wealth, and Average Yield Percentage\*

|                    | 6/30/82<br>Total<br>Market Value<br>(in billions) | 6/30/82<br>Mean<br>Endowment<br>(in millions) | 6/30/82<br>Median<br>Endowment<br>(in millions) | 1982<br>Median<br>Increase<br>(in wealth) | Median<br>Average<br>Yield<br>Percent |
|--------------------|---------------------------------------------------|-----------------------------------------------|-------------------------------------------------|-------------------------------------------|---------------------------------------|
| Over \$50 Million  | \$14.890                                          | \$236.403                                     | \$119.788                                       | -3.1%                                     | 8.0%                                  |
| \$10-\$50 Million  | 2.425                                             | 25.530                                        | 21.592                                          | -0.6                                      | 8.1                                   |
| Under \$10 Million | .187                                              | 5.194                                         | 5.444                                           | 2.7                                       | 9.2                                   |
| Independent        | 14.450                                            | 97.661                                        | 35.457                                          | -1.5                                      | 8.1                                   |
| Public             | 3.052                                             | 66.344                                        | 17.957                                          | 0.1                                       | 8.5                                   |
| All Institutions   | \$17.502                                          | \$90.236                                      | \$29.043                                        | -1.4%                                     | 8.2%                                  |

\*Endowment market value and wealth figures include life income funds. Yield percentages exclude life income funds.

### Gifts to Endowment

Because each college or university and its alumni are unique, it is often difficult to draw analogies relating to gift giving among institutions. It is hoped that from data gathered over longer periods of time many useful trends will appear. Table 44 shows that, in 1982 and prior years, the smaller the institution the greater endowment gifts are as a percentage of market value. In each year, gifts to public institutions have represented a larger percentage of average market value than have those to independent institutions.

Gifts to all institutions as a percentage of market value for the eight years 1975 through 1982 continue to be in a rather tight range of about 2%, from 2.6% in 1974-75 to 4.4% in 1981-82, but trending upward. Gifts in 1982, 4.4% of average market value, were at their highest level since NACUBO began gathering these data.

Table 44

#### Gifts to Endowment as a Percentage of Average Market Value 1974-75 to 1981-82

|                      | Median Endowment |         |         |         |         |         |         |         |
|----------------------|------------------|---------|---------|---------|---------|---------|---------|---------|
|                      | 1974-75          | 1975-76 | 1976-77 | 1977-78 | 1978-79 | 1979-80 | 1980-81 | 1981-82 |
| Over \$50 million    | 2.0%             | 3.1%    | 2.3%    | 2.4%    | 2.7%    | 3.5%    | 2.9%    | 3.5%    |
| \$10 to \$50 million | 2.3              | 2.2     | 3.1     | 3.4     | 2.9     | 3.8     | 3.4     | 4.8     |
| Under \$10 million   | 3.1              | 5.1     | 6.7     | 4.5     | 6.3     | 6.1     | 5.9     | 7.7     |
| Independent          | 2.3              | 2.4     | 3.0     | 2.7     | 2.7     | 3.6     | 3.3     | 4.1     |
| Public               | 3.6              | 4.7     | 3.7     | 4.1     | 4.6     | 5.4     | 5.7     | 5.6     |
| All Institutions     | 2.6%             | 2.7%    | 3.1%    | 3.4%    | 3.3%    | 3.7%    | 3.4%    | 4.4%    |

### Quasi-Endowment

Table 45 shows 1981-82 quasi-endowment gifts as a percentage of total endowment gifts. Quasi-endowment gifts are deemed more valuable than restricted gifts as these are gifts over which the institution has the greater discretion. The table shows that independent institutions have slightly less quasi-endowment as a percentage of total endowment than public institutions, and that the largest institutions have about the same percentage of quasi-endowment as the smallest, followed by the \$10-\$50 million group. In 1982 the median institution received 14.0% of its total gifts in quasi-endowment.



Table 45

Quasi-Endowment

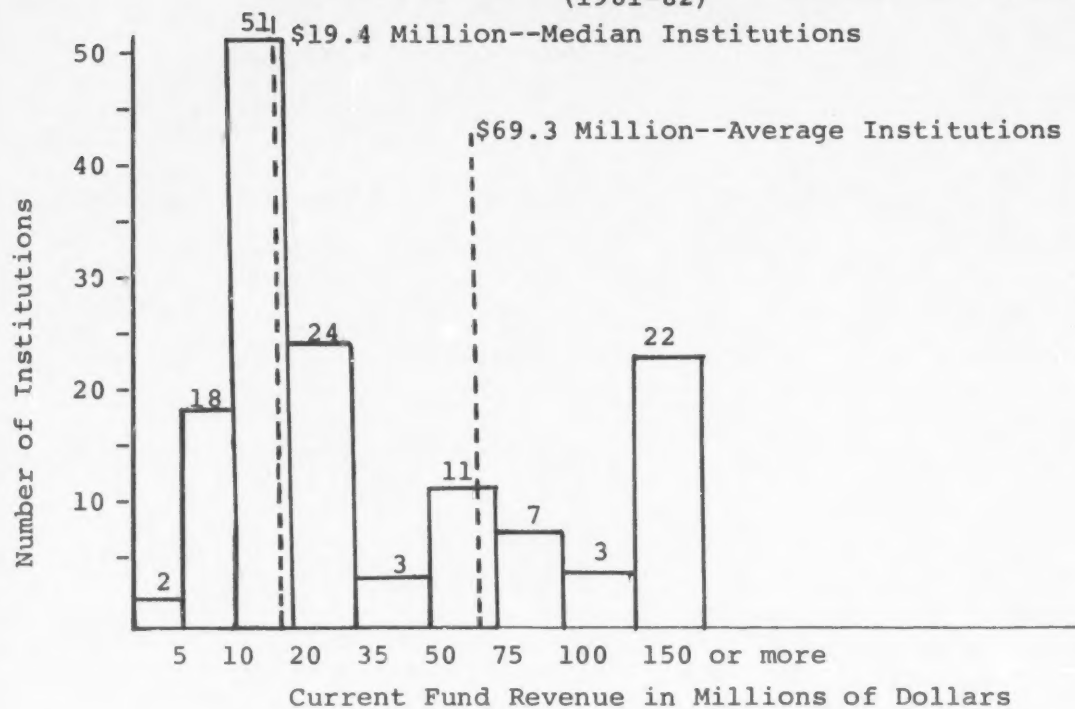
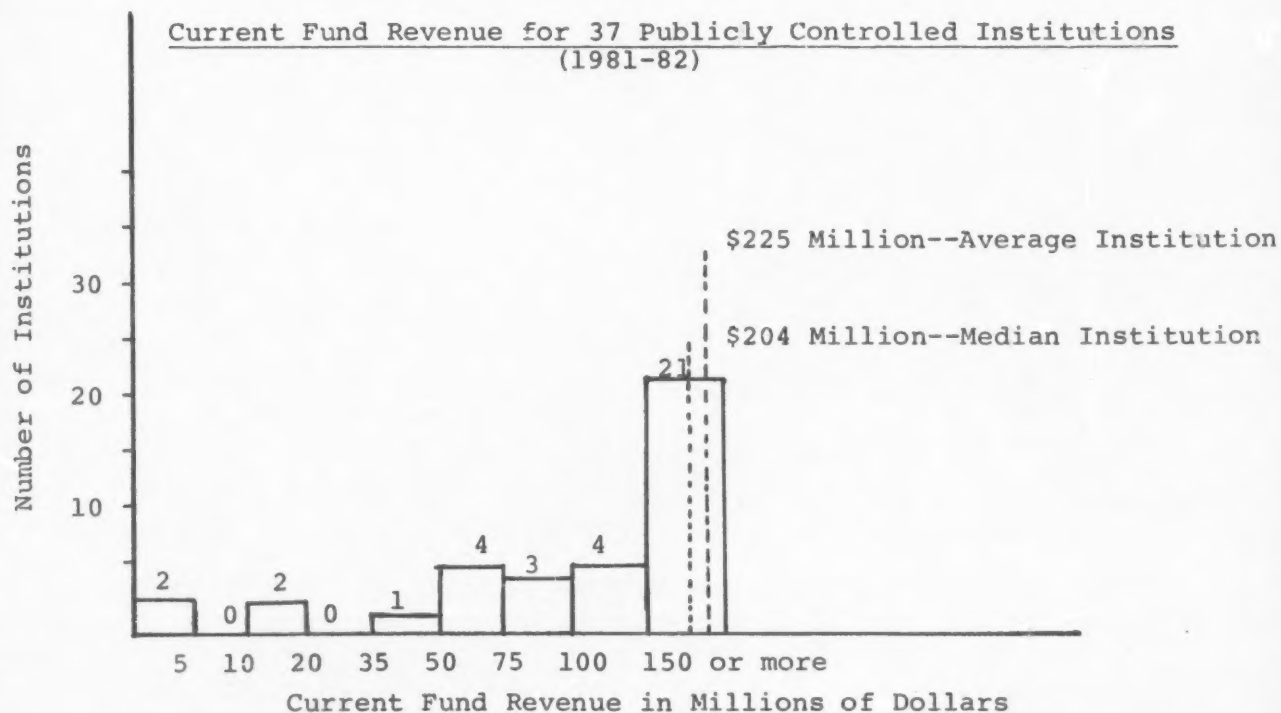
|                      | <u>Total Quasi-Endowment<br/>As a Percentage of Total<br/>Endowment At June 30, 1982</u> |                             | <u>1981-82 Quasi-Endowment<br/>Gifts as a Percentage<br/>of Total 1981-82 Gifts</u> |                             |
|----------------------|------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------|-----------------------------|
|                      | <u>Mean<br/>Endowment</u>                                                                | <u>Median<br/>Endowment</u> | <u>Mean<br/>Endowment</u>                                                           | <u>Median<br/>Endowment</u> |
| Over \$50 million    | 35.4%                                                                                    | 32.7%                       | 17.6%                                                                               | 9.0%                        |
| \$10 to \$50 million | 30.6                                                                                     | 27.9                        | 25.9                                                                                | 19.8                        |
| Under \$10 million   | 30.5                                                                                     | 32.0                        | 28.1                                                                                | 13.7                        |
| Independent          | 31.5                                                                                     | 28.8                        | 23.1                                                                                | 13.9                        |
| Public               | 33.9                                                                                     | 33.7                        | 26.2                                                                                | 17.5                        |
| All Institutions     | 32.0%                                                                                    | 29.9%                       | 23.9%                                                                               | 14.0%                       |

ENDOWMENT SPENDING AND SUPPORTCurrent Fund Revenue and Endowment Income

Current fund revenue and endowment income for both independent and public institutions are portrayed in Graphs III and IV. It can be seen from Graph III that two independent and two public institutions had current fund revenue of less than \$5 million. Eighteen independent institutions and no public institutions had current fund revenue of \$5 to \$10 million, etc. Graph IV shows, for example, that 6 independent institutions, or 4% (6/141), and 21 public institutions, or 62% (21/34) received income from endowment constituting less than 1% of current fund revenue, etc. The average amount of current fund revenue for independent and public institutions is \$69.3 million and \$225 million, respectively. The median figures are \$19.4 million and \$204 million. The average percentage of endowment income to current fund revenue for independent and public institutions is 11.8% and 1.4%, respectively. The median figures are 8.1% and 0.7%. This graph depicts the greater importance placed on the endowment of independent institutions relative to that of public institutions.

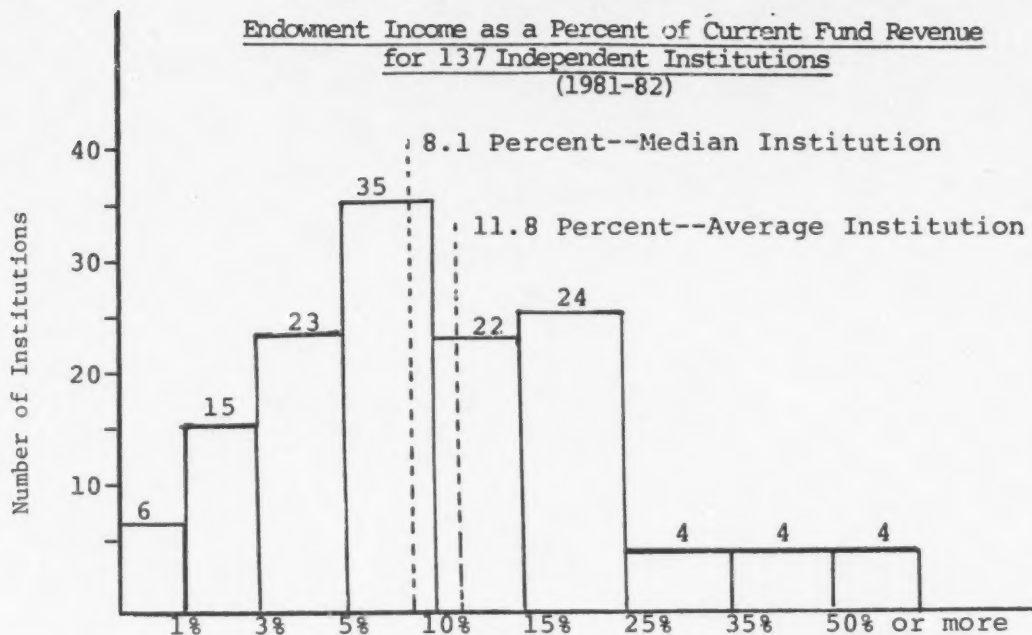
Endowment Coverage

Graph V shows the distribution of 140 independent institutions in terms of their average endowment as of June 30, 1981, and June 30, 1982, divided by fiscal 1982 current fund expenditures. For example, for two institutions the average market value of the endowment was greater than 7.5 times current fund expenditures. On the other hand, 27 institutions could not cover 50% of their current fund expenditures with their entire endowment. The endowment of the average institution is 1.89 times greater than current fund expenditures. The endowment of the median institution is 1.17 times greater.

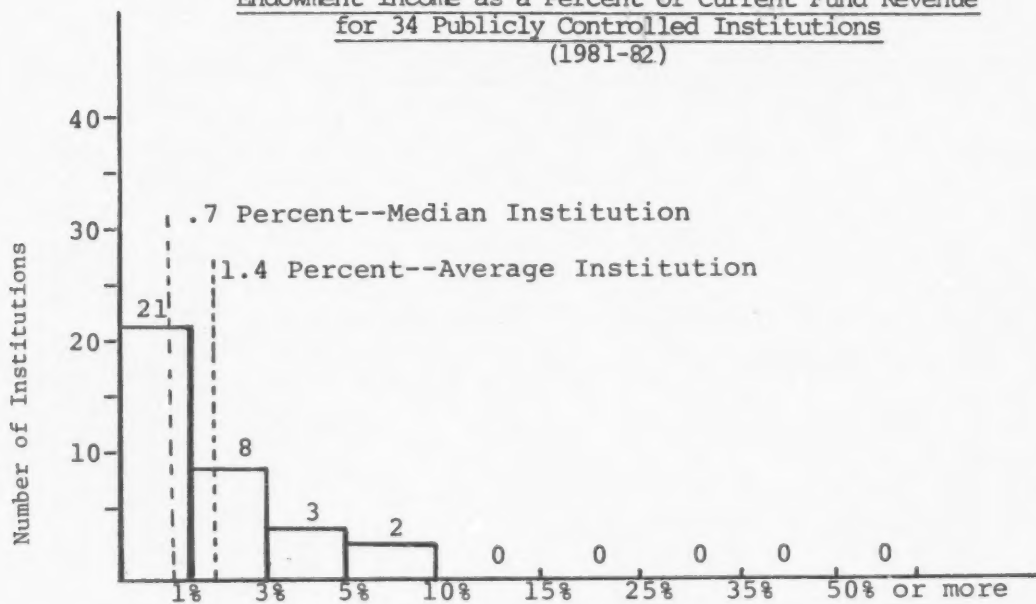
GRAPH IIICurrent Fund Revenue for 141 Independent Institutions  
(1981-82)Current Fund Revenue for 37 Publicly Controlled Institutions  
(1981-82)

GRAPH IV

Endowment Income as a Percent of Current Fund Revenue  
for 137 Independent Institutions  
 (1981-82)

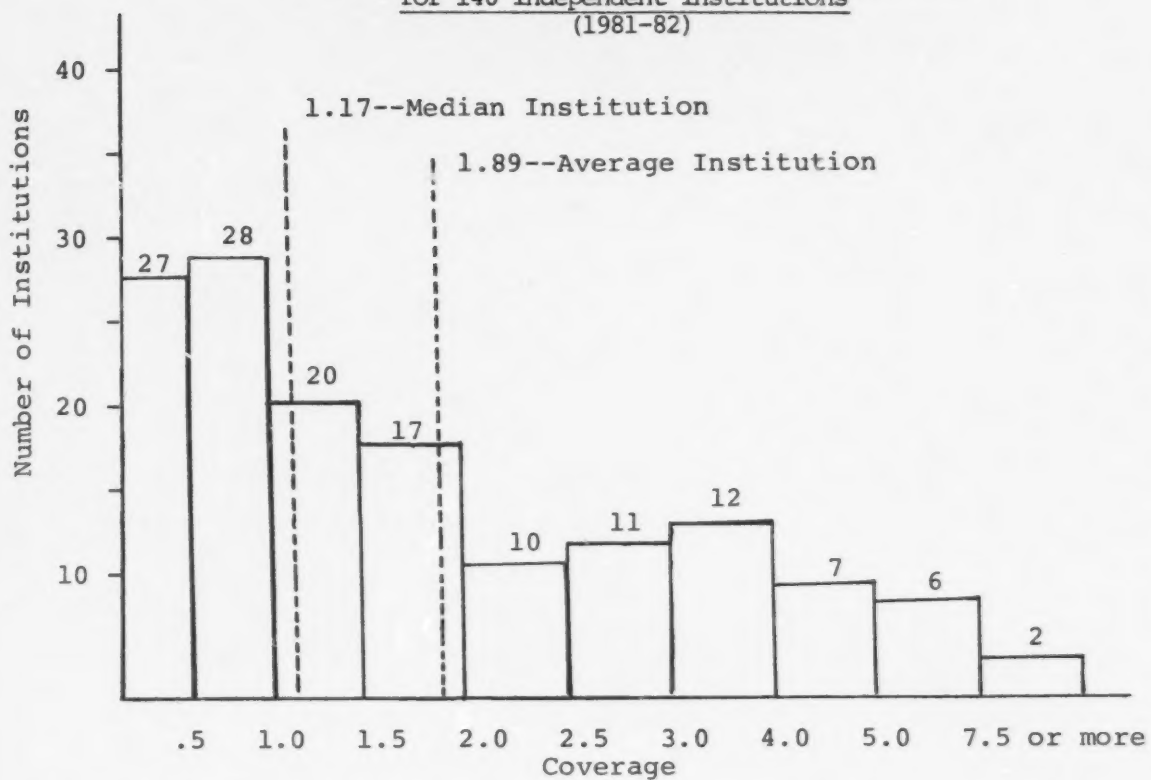


Endowment Income as a Percent of Current Fund Revenue  
for 34 Publicly Controlled Institutions  
 (1981-82)



GRAPH V

Endowment\* Coverage of Current Fund Expenditures  
for 140 Independent Institutions  
(1981-82)

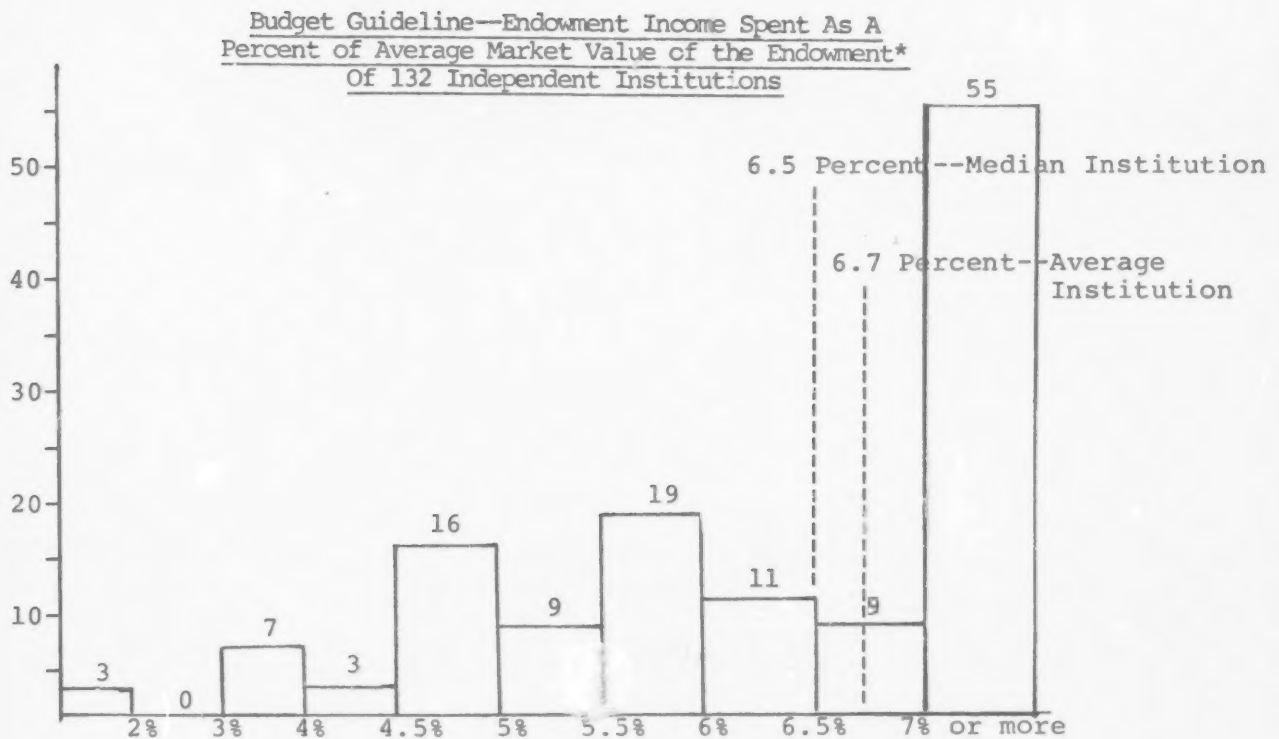


\*Excluding life income funds.

### Budget Guideline

Graph VI illustrates for independent institutions the amount of endowment spent for fiscal 1982 current operations as a percentage of the average market value. This percentage is the amount utilized from the endowment after any income is added back to principal and includes any appropriation of endowment principal during the fiscal year to help meet the current budget. In a sense it is a budget "guideline" showing what institutions during fiscal 1981-82 contributed from their total endowment to support their immediate needs. The budget guideline for the average and median institution is 6.7% and 6.5%, respectively.

GRAPH VI



\*Excluding life income funds.

The 1982 median budget guideline increased 0.2% from the prior year. Part or most of this increase might be the result of lower stock and bond prices, rather than higher spending; this is difficult to determine. However, as shown in Table 46, spending as a percentage of endowment has increased almost 2 percentage points since NACUBO began gathering these data in 1974. After adjusting for restricted income that must be added to principal (about 3% of gross yield for the median institution), it seems that institutions are, in fact, spending less from endowment to meet expenses in these inflationary times than traditionally could be spent (all yield earned by endowment). The 6.5% median budget guideline is well over a full percentage point below the 8.1% average yield for independent institutions. One explanation for this may be that a number of institutions are adding income to principal to compensate for the loss of real endowment as a result of inflation and security market performance as evidenced in Table 41. Budget guideline figures are net of life income funds.

Table 46

1974 to 1982 Budget Guideline--Endowment Income  
Spent as a Percentage of Average Market Value of the  
Endowment for Independent Institutions

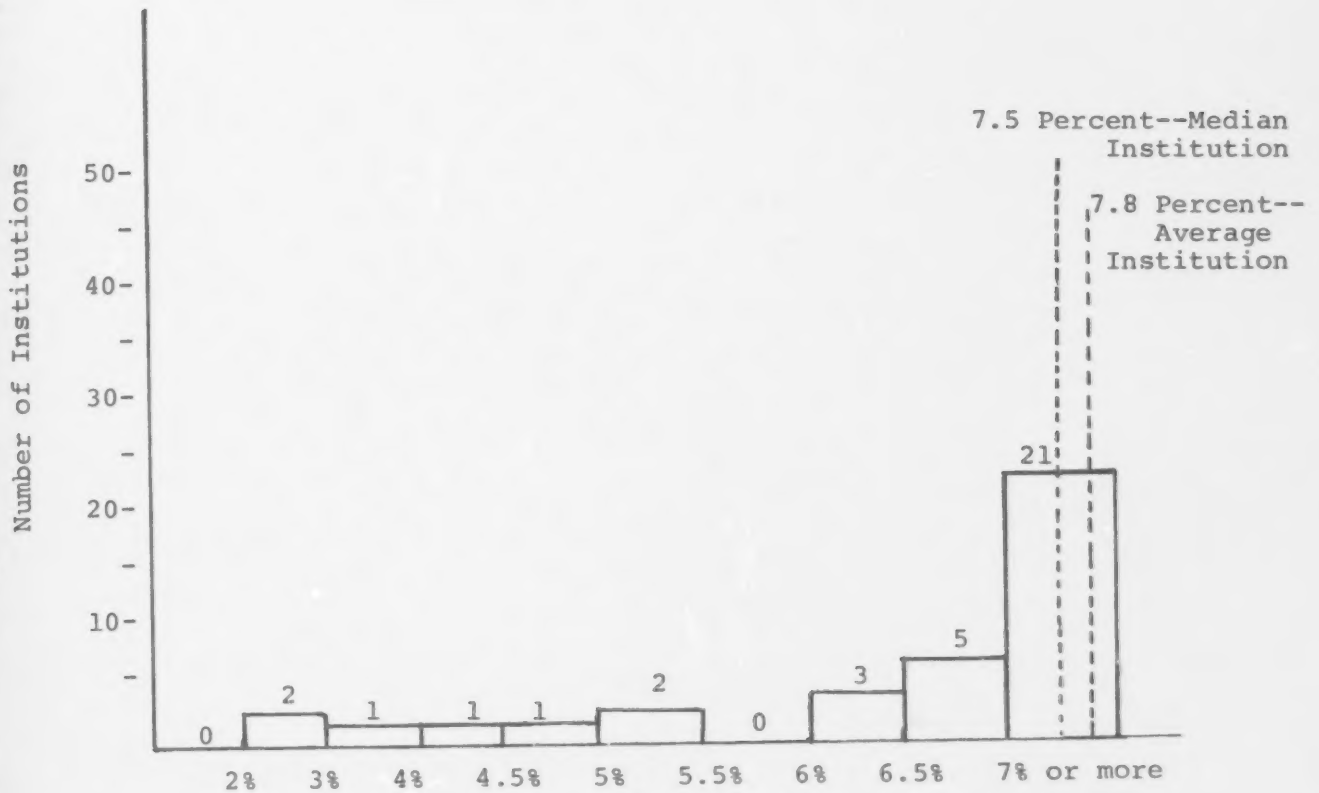
|      | <u>Average</u><br><u>Institution</u> | <u>Median</u><br><u>Institution</u> |
|------|--------------------------------------|-------------------------------------|
| 1982 | 6.7%                                 | 6.5%                                |
| 1981 | 6.4                                  | 6.3                                 |
| 1980 | 6.8                                  | 6.4                                 |
| 1979 | 6.0                                  | 6.0                                 |
| 1978 | 5.8                                  | 5.6                                 |
| 1977 | 5.3                                  | 5.3                                 |
| 1976 | 5.0                                  | 5.0                                 |
| 1975 | 5.3                                  | 5.2                                 |
| 1974 | 4.8                                  | 4.8                                 |

Graph VII illustrates budget guideline figures for public institutions. The average guideline figure is 7.8% and the median figure is 7.5%. The latter figure is a full percentage point below the 8.5% average yield for public institutions. Similar results were found the prior year. Hence, both public and independent institutions appear to be adding income to principal.



GRAPH VII

Budget Guideline--Endowment Income Spent As A  
Percent of Average Market Value of the Endowment\*  
Of 36 Public Institutions



### Spending Practices of Institutions

In 1982, seventy-four institutions (40% of the 186 responding) indicated that they use a formula to determine spending from endowment. Of the 74 institutions, only eight reported spending a portion of appreciation (under the total return concept) as well as yield (interest, dividends, rent, etc.) to meet current expenditures. This would seem to indicate that the formulas being utilized "cap" the spending of yield and dictate adding income back to principal for reasons exclusive of donor and other similar restrictions. In fact, of the 167 institutions reporting their total fiscal 1981-82 distribution, 81 (49%) reported adding a portion of their gross yield to a reserve as a hedge against inflation or as part of their spending formula.

### Restricted Yield

This is the second year NACUBO is reporting on restricted yield. Sixty-two percent (104 of 167) of institutions add income to principal due to donor or other restrictions. Table 47 shows the range of responses, based on restricted yield as a percentage of gross yield, categorized by size and by independent and public institutions.

Table 47

#### 1981-82 Range of Institutional Responses of Restricted Yield as a Percentage of Gross Yield

| <u>Percent of<br/>Gross Yield</u> | <u>Over \$50<br/>Million</u> | <u>\$10-\$50<br/>Million</u> | <u>Under \$10<br/>Million</u> | <u>Independent<br/>Institutions</u> | <u>Public<br/>Institutions</u> | <u>All<br/>Institutions</u> |
|-----------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------------|--------------------------------|-----------------------------|
| Under 2%                          | 18                           | 22                           | 5                             | 38                                  | 7                              | 45                          |
| 2 - 4%                            | 5                            | 6                            | 2                             | 11                                  | 2                              | 13                          |
| 4 - 6%                            | 5                            | 5                            | 1                             | 8                                   | 3                              | 11                          |
| 6 - 8%                            | 2                            | 3                            | 1                             | 3                                   | 3                              | 6                           |
| 8 - 10%                           | 1                            | 2                            | 0                             | 3                                   | 0                              | 3                           |
| 10 - 12.5%                        | 1                            | 3                            | 0                             | 1                                   | 3                              | 4                           |
| 12.5 - 15%                        | 1                            | 0                            | 2                             | 1                                   | 2                              | 3                           |
| 15 - 17.5%                        | 2                            | 1                            | 0                             | 3                                   | 0                              | 3                           |
| 17.5 - 20%                        | 1                            | 1                            | 1                             | 2                                   | 1                              | 3                           |
| Over 20%                          | <u>2</u>                     | <u>6</u>                     | <u>5</u>                      | <u>9</u>                            | <u>4</u>                       | <u>13</u>                   |
| TOTAL                             | <u>38</u>                    | <u>49</u>                    | <u>17</u>                     | <u>79</u>                           | <u>25</u>                      | <u>104</u>                  |

### Utilization of Quasi-Endowment

This also is the second year NACUBO is reporting information regarding institutions which utilized quasi-endowment principal to help meet the budget. Table 48 shows the range of responses, based on quasi-endowment used for current operations as a percentage of distributed income, for the 18 institutions which reported utilizing quasi-endowment to meet expenditures in 1982.

Table 48

1981-82 Range of Responses of Institutions Reporting  
Utilization of Quasi-Endowment to Meet the Budget  
Percentage of Distributed Income

| <u>Percent of</u><br><u>Gross Yield</u> | <u>Over \$50</u><br><u>Million</u> | <u>\$10-\$50</u><br><u>Million</u> | <u>Under \$10</u><br><u>Million</u> | <u>Independent</u><br><u>Institutions</u> | <u>Public</u><br><u>Institutions</u> | <u>All</u><br><u>Institutions</u> |
|-----------------------------------------|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------------|--------------------------------------|-----------------------------------|
| Under 2%                                | 2                                  | 2                                  | 0                                   | 2                                         | 2                                    | 4                                 |
| 2 - 4%                                  | 1                                  | 1                                  | 0                                   | 1                                         | 1                                    | 2                                 |
| 4 - 6%                                  | 1                                  | 1                                  | 2                                   | 3                                         | 1                                    | 4                                 |
| 6 - 8%                                  | 2                                  | 1                                  | 0                                   | 3                                         | 0                                    | 3                                 |
| 8 - 10%                                 | 1                                  | 0                                  | 1                                   | 1                                         | 1                                    | 2                                 |
| 10 - 12.5%                              | 0                                  | 0                                  | 0                                   | 0                                         | 0                                    | 0                                 |
| 12.5 - 15%                              | 0                                  | 0                                  | 0                                   | 0                                         | 0                                    | 0                                 |
| 15 - 17.5%                              | 0                                  | 0                                  | 0                                   | 0                                         | 0                                    | 0                                 |
| 17.5 - 20%                              | 0                                  | 0                                  | 0                                   | 0                                         | 0                                    | 0                                 |
| Over 20%                                | 2                                  | 1                                  | 0                                   | 2                                         | 1                                    | 3                                 |
| TOTAL                                   | <u>9</u>                           | <u>6</u>                           | <u>3</u>                            | <u>12</u>                                 | <u>6</u>                             | <u>18</u>                         |

Profile of Distributable Endowment Income

Distributable endowment income is the distribution from endowment used to meet current expenditures. It is the gross yield from endowment, plus any total return appreciation utilized or quasi-endowment expended to meet the budget, less any yield added to principal for reserve purposes or as part of a spending formula, or due to donor restrictions. Thus, even institutions with a "yield only" spending policy might not be able to spend all gross yield because of donor restrictions or to establish a spending formula reserve. On the other hand, distributable income can exceed gross yield if an institution applies the total return concept or has current expenses greater than current revenue and needs to utilize endowment to meet current budget needs.

Distributable income in 1982 was 86.7% of gross yield, that is, the average institution added back to principal 13.3% of interest, dividends, rent, and other similar yield. The range of results is shown in Table 49. This table shows that 10 institutions distributed less than 50% of their gross yield and 13 institutions spent more income in 1982 than yield actually received. Of the 13, 6 of these institutions applied the total return concept and 7 were spending quasi-endowment to meet their budget expenditures.

Table 49

1981-82 Range of Institutional Responses of  
Distributable Endowment Income as a Percentage  
of Gross Yield from Endowment

| <u>Percent of</u><br><u>Gross Yield</u> | <u>Over \$50</u><br><u>Million</u> | <u>\$10-\$50</u><br><u>Million</u> | <u>Under \$10</u><br><u>Million</u> | <u>Independent</u><br><u>Institutions</u> | <u>Public</u><br><u>Institutions</u> | <u>All</u><br><u>Institutions</u> |
|-----------------------------------------|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------------|--------------------------------------|-----------------------------------|
| Under 50%                               | 1                                  | 5                                  | 4                                   | 7                                         | 3                                    | 10                                |
| 50 - 60%                                | 5                                  | 5                                  | 3                                   | 12                                        | 1                                    | 13                                |
| 60 - 70%                                | 9                                  | 9                                  | 4                                   | 20                                        | 2                                    | 22                                |
| 70 - 75%                                | 6                                  | 3                                  | 3                                   | 7                                         | 5                                    | 12                                |
| 75 - 80%                                | 5                                  | 5                                  | 1                                   | 11                                        | 0                                    | 11                                |
| 80 - 85%                                | 5                                  | 3                                  | 0                                   | 7                                         | 1                                    | 8                                 |
| 85 - 90%                                | 6                                  | 7                                  | 2                                   | 11                                        | 4                                    | 15                                |
| 90 - 95%                                | 5                                  | 7                                  | 2                                   | 10                                        | 4                                    | 14                                |
| 95 - 100%                               | 6                                  | 32                                 | 11                                  | 35                                        | 14                                   | 49                                |
| Over 100%                               | <u>5</u>                           | <u>7</u>                           | <u>1</u>                            | <u>11</u>                                 | <u>2</u>                             | <u>13</u>                         |
| TOTAL                                   | <u>53</u>                          | <u>83</u>                          | <u>31</u>                           | <u>131</u>                                | <u>36</u>                            | <u>167</u>                        |

Application of Endowment Spending Formulas

Exhibit IV describes the approach used by each of the seventy-four institutions indicating that they used a formula to determine 1982 spending from endowment. Of the 74 institutions, 5 (7%) adopted their formula in 1982, switching from a policy of spending yield in 1981. Seventeen institutions are considering a formula, while 37 considered and rejected adopting a formula. Sixty-one have yet to address this matter. Table 50 shows a distribution of those applying a formula, based on size and type of control.

Table 50

Institutions in Fiscal 1981-82 Which Applied  
an Endowment Spending Formula

|                      | <u>Independent</u> | <u>Public</u> | <u>Total</u> | <u>Percentage</u><br><u>of Total</u> |
|----------------------|--------------------|---------------|--------------|--------------------------------------|
| Over \$100 Million   | 17                 | 1             | 18           | 24%                                  |
| \$50 - \$100 Million | 11                 | 1             | 12           | 16                                   |
| \$25 - \$50 Million  | 14                 | 2             | 16           | 22                                   |
| \$10 - \$25 Million  | 15                 | 4             | 19           | 26                                   |
| \$5 - \$10 Million   | 5                  | 1             | 6            | 8                                    |
| Under \$5 Million    | <u>2</u>           | <u>1</u>      | <u>3</u>     | <u>4</u>                             |
| TOTAL                | <u>64</u>          | <u>10</u>     | <u>74</u>    | <u>100%</u>                          |

Generally, most of the 74 institutions applied one of two different types of formulas: a formula which increased spending by a designated percentage over the prior year, or a formula based on a percentage of endowment market value. Of the 74 reporting their formula, 13 (18%) increased spending a designated percentage, 50 (67%) spent a percentage of endowment, and 11 (15%) used various other approaches.

Most of the market formulas apply a percentage to an endowment base averaged over a period of years. The most frequent period used was three years (about two-thirds of those responding), and the second most frequent, five years (about one-sixth). The remaining institutions generally used a market period closer to the subsequent budget year in question.

#### Endowment Support

Endowment principal and distributable endowment income per full-time equivalent (FTE) student and per faculty member for independent institutions are shown in Tables 51 through 55, respectively. No comparable tables have been produced for public institutions because of the general lack of significance placed on their endowments. Endowment support for approximately 60% of the public institutions responding was in the lowest category range for independent institutions, and over 85% of public institutions responding were in the lowest two categories.

However, a ranking based on endowment per full-time equivalent student for each independent institution and each public institution is shown in Tables 56 and 57, respectively. These tables also indicate endowment per FTE faculty member and the ratio of FTE students to FTE faculty members.

Table 51

Independent Institutions -- Endowment Principal  
per FTE Student (1981-82)

| <u>Amount</u>         | <u>Number of<br/>Institutions</u> |
|-----------------------|-----------------------------------|
| Less than \$1,000     | 3                                 |
| \$1,000 to \$5,000    | 29                                |
| \$5,000 to \$10,000   | 25                                |
| \$10,000 to \$15,000  | 18                                |
| \$15,000 to \$20,000  | 19                                |
| \$20,000 to \$25,000  | 9                                 |
| \$25,000 to \$35,000  | 13                                |
| \$35,000 to \$50,000  | 14                                |
| \$50,000 to \$75,000  | 10                                |
| Greater than \$75,000 | <u>5</u>                          |
| TOTAL                 | <u>145</u>                        |
| Average Institution*  | \$21,460                          |
| Median Institution    | \$13,900                          |

Table 52

Independent Institutions -- Distributable Endowment Income  
per FTE Student (1981-82)

| <u>Amount</u>        | <u>Number of<br/>Institutions</u> |
|----------------------|-----------------------------------|
| Less than \$100      | 5                                 |
| 100 to \$200         | 14                                |
| 200 to \$300         | 10                                |
| 300 to \$500         | 16                                |
| 500 to \$750         | 14                                |
| 750 to \$1,000       | 17                                |
| 1,000 to \$1,500     | 13                                |
| 1,500 to \$2,000     | 13                                |
| 2,000 to \$4,000     | 22                                |
| Greater than \$4,000 | <u>7</u>                          |
| TOTAL                | <u>131</u>                        |
| Average Institution* | \$1,300                           |
| Median Institution   | \$850                             |

\*NOTE: Average figures exclude results for The Rockefeller University; see Table 56.



Table 53

Independent Institutions -- Endowment Principal  
per Faculty Member (1981-82)

| <u>Amount</u>          | <u>Number of<br/>Institutions</u> |
|------------------------|-----------------------------------|
| Less than \$25,000     | 6                                 |
| 25,000 to \$50,000     | 14                                |
| 50,000 to \$75,000     | 11                                |
| 75,000 to \$100,000    | 11                                |
| 100,000 to \$125,000   | 10                                |
| 125,000 to \$150,000   | 8                                 |
| 150,000 to \$200,000   | 19                                |
| 200,000 to \$300,000   | 23                                |
| 300,000 to \$400,000   | 7                                 |
| Greater than \$400,000 | <u>28</u>                         |
| TOTAL                  | <u>137</u>                        |
| Average Institution    | \$235,150                         |
| Median Institution     | \$170,000                         |

Table 54

Independent Institutions -- Distributable Endowment Income  
per Faculty Member (1981-82)

| <u>Amount</u>         | <u>Number of<br/>Institutions</u> |
|-----------------------|-----------------------------------|
| Less than \$1,000     | 2                                 |
| 1,000 to \$2,000      | 7                                 |
| 2,000 to \$3,000      | 9                                 |
| 3,000 to \$4,000      | 6                                 |
| 4,000 to \$5,000      | 7                                 |
| 5,000 to \$7,500      | 20                                |
| 7,500 to \$10,000     | 12                                |
| 10,000 to \$15,000    | 16                                |
| 15,000 to \$20,000    | 14                                |
| Greater than \$20,000 | <u>32</u>                         |
| TOTAL                 | <u>125</u>                        |
| Average Institution   | \$14,825                          |
| Median Institution    | \$9,750                           |

Table 55

Eight-Year Endowment Record -- Principal and Income  
per FTE Student and Faculty Member

|      | <u>Principal per FTE Student</u> |                            | <u>Distributable Endowment<br/>Income per FTE Student</u> |                            |
|------|----------------------------------|----------------------------|-----------------------------------------------------------|----------------------------|
|      | <u>Average<br/>Response</u>      | <u>Median<br/>Response</u> | <u>Average<br/>Response</u>                               | <u>Median<br/>Response</u> |
| 1982 | \$21,460                         | \$13,900                   | \$1,300                                                   | \$850                      |
| 1981 | 23,550                           | 14,600                     | 1,200                                                     | 775                        |
| 1980 | 21,525                           | 13,450                     | 1,175                                                     | 795                        |
| 1979 | 20,250                           | 11,700                     | 1,125                                                     | 680                        |
| 1978 | 18,250                           | 11,600                     | 1,250                                                     | 665                        |
| 1977 | 17,725                           | 10,000                     | 950                                                       | 585                        |
| 1976 | 18,650                           | 11,750                     | 915                                                       | 540                        |
| 1975 | 15,550                           | 9,400                      | 800                                                       | 510                        |
| 1974 | 14,800                           | 8,200                      | 800                                                       | 430                        |

|      | <u>Principal per Faculty Member</u> |                            | <u>Distributable Endowment<br/>Income per Faculty Member</u> |                            |
|------|-------------------------------------|----------------------------|--------------------------------------------------------------|----------------------------|
|      | <u>Average<br/>Response</u>         | <u>Median<br/>Response</u> | <u>Average<br/>Response</u>                                  | <u>Median<br/>Response</u> |
| 1982 | \$235,150                           | \$170,000                  | \$14,825                                                     | \$ 9,750                   |
| 1981 | 251,650                             | 169,000                    | 13,625                                                       | 8,775                      |
| 1980 | 232,475                             | 165,300                    | 13,075                                                       | 10,100                     |
| 1979 | 224,350                             | 156,800                    | 12,825                                                       | 9,050                      |
| 1978 | 200,100                             | 136,500                    | 11,575                                                       | 7,750                      |
| 1977 | 189,000                             | 135,000                    | 10,200                                                       | 6,800                      |
| 1976 | 192,000                             | 138,000                    | 11,000                                                       | 7,050                      |
| 1975 | 162,000                             | 118,000                    | 8,700                                                        | 6,250                      |
| 1974 | 148,000                             | 100,000                    | 8,100                                                        | 5,100                      |

Table 56

1982 ENDOWMENT SUPPORT  
RANKING BASED ON ENDOWMENT PER FULL-TIME EQUIVALENT STUDENT  
FOR INDEPENDENT INSTITUTIONS ONLY

| Institution                            | 1982<br>Endowment<br>in \$1,000's | # Of<br>FTE<br>Students | # Of<br>FTE<br>Faculty | Ratio Of<br>Students<br>To Faculty | Endowment<br>Per Faculty<br>In \$1,000's | Endowment<br>Per Student<br>In \$1,000's |
|----------------------------------------|-----------------------------------|-------------------------|------------------------|------------------------------------|------------------------------------------|------------------------------------------|
| 1 ROCKEFELLER UNIV                     | 240563                            | 95                      | 449                    | 0.2                                | 536                                      | 2532.2                                   |
| 2 PRINCETON UNIV                       | 885772                            | 5783                    | 672                    | 8.6                                | 1318                                     | 153.2                                    |
| 3 ACADEMY OF THE NEW CHURCH            | 44186                             | 408                     | 54                     | 7.6                                | 818                                      | 108.3                                    |
| 4 CAL INST OF TECH                     | 192426                            | 1810                    | 274                    | 6.6                                | 702                                      | 106.3                                    |
| 5 RICE UNIV                            | 333487                            | 3499                    | 345                    | 10.1                               | 967                                      | 95.3                                     |
| 6 YALE UNIV                            | 740600                            | 9986                    | 1365                   | 7.3                                | 543                                      | 74.2                                     |
| 7 GRINNELL COLLEGE                     | 83220                             | 1204                    | 105                    | 11.5                               | 793                                      | 69.1                                     |
| 8 AGNES SCOTT COLLEGE                  | 34627                             | 539                     | 67                     | 8.0                                | 517                                      | 64.2                                     |
| 9 AMHERST COLLEGE                      | 94412                             | 1530                    | 150                    | 10.2                               | 629                                      | 61.7                                     |
| 10 BEREA COLLEGE                       | 91161                             | 1534                    | 177                    | 8.7                                | 515                                      | 59.4                                     |
| 11 WELLESLEY COLLEGE                   | 126224                            | 2152                    | 213                    | 10.1                               | 593                                      | 58.7                                     |
| 12 STANFORD UNIV                       | 680621                            | 12116                   | 1269                   | 9.5                                | 536                                      | 56.2                                     |
| 13 DARTMOUTH COLLEGE                   | 230071                            | 4259                    | 400                    | 10.6                               | 575                                      | 54.0                                     |
| 14 POMONA COLLEGE                      | 72765                             | 1357                    | 136                    | 10.0                               | 535                                      | 53.6                                     |
| 15 COOPER UNION FOR THE ADV OF SCI&ART | 43890                             | 883                     | 81                     | 10.9                               | 542                                      | 49.7                                     |
| 16 BAYLOR COLLEGE OF MEDICINE          | 44491                             | 902                     | 913                    | 1.0                                | 49                                       | 49.3                                     |
| 17 MASSACHUSETTS INST OF TECH          | 466977                            | 9510                    | 1221                   | 7.8                                | 382                                      | 49.1                                     |
| 18 WESLEYAN UNIV                       | 121964                            | 2581                    | 234                    | 11.0                               | 521                                      | 47.3                                     |
| 19 SMITH COLLEGE                       | 125150                            | 2678                    | 263                    | 10.2                               | 476                                      | 46.7                                     |
| 20 EARLHAM COLLEGE                     | 46299                             | 993                     | 77                     | 12.9                               | 601                                      | 46.6                                     |
| 21 UNIV OF CHICAGO                     | 394200                            | 8649                    | 732                    | 11.8                               | 539                                      | 45.6                                     |
| 22 VASSAR COLLEGE                      | 98370                             | 2227                    | 229                    | 9.7                                | 430                                      | 44.2                                     |
| 23 THOMAS JEFFERSON UNIV               | 60149                             | 1450                    | 353                    | 4.1                                | 170                                      | 41.5                                     |
| 24 SOUTHWESTERN UNIV                   | 37853                             | 939                     | 67                     | 14.0                               | 565                                      | 40.3                                     |
| 25 WASHINGTON UNIV                     | 302200                            | 8328                    | 1685                   | 4.9                                | 179                                      | 36.3                                     |
| 26 CARLETON COLLEGE                    | 60035                             | 1710                    | 138                    | 12.4                               | 435                                      | 35.1                                     |
| 27 SOUTHWESTERN AT MEMPHIS             | 37409                             | 1066                    | 115                    | 9.3                                | 325                                      | 35.1                                     |
| 28 MIDDLEBURY COLLEGE                  | 66383                             | 1906                    | 130                    | 14.7                               | 511                                      | 34.8                                     |
| 29 OBERLIN COLLEGE                     | 95924                             | 2763                    | 237                    | 11.7                               | 405                                      | 34.7                                     |
| 30 HAVERFORD COLLEGE                   | 35773                             | 1048                    | 84                     | 12.5                               | 426                                      | 34.1                                     |
| 31 JOHNS HOPKINS UNIV                  | 223994                            | 6679                    | 1633                   | 4.1                                | 137                                      | 33.5                                     |
| 32 LAFAYETTE COLLEGE                   | 65142                             | 2016                    | 160                    | 12.6                               | 407                                      | 32.3                                     |
| 33 SWEET BRIAR COLLEGE                 | 19932                             | 629                     | 78                     | 8.1                                | 256                                      | 31.7                                     |

1982 ENDOWMENT SUPPORT  
RANKING BASED ON ENDOWMENT PER FULL-TIME EQUIVALENT STUDENT  
FOR INDEPENDENT INSTITUTIONS ONLY

| Institution                   | 1982<br>Endowment<br>In \$1,000's | # Of<br>FTE<br>Students | # Of<br>FTE<br>Faculty | Ratio Of<br>Students<br>To Faculty | Endowment<br>Per Faculty<br>In \$1,000's | Endowment<br>Per Student<br>In \$1,000's |
|-------------------------------|-----------------------------------|-------------------------|------------------------|------------------------------------|------------------------------------------|------------------------------------------|
| 34 OCCIDENTAL COLLEGE         | 49226                             | 1554                    | 118                    | 13.2                               | 417                                      | 31.7                                     |
| 35 PHIL C OF PHARM & SC       | 30826                             | 1019                    | 120                    | 8.5                                | 257                                      | 30.3                                     |
| 36 BRYN MAWR COLLEGE          | 48977                             | 1626                    | 143                    | 11.4                               | 342                                      | 30.1                                     |
| 37 MOUNT HOLYOKE COLLEGE      | 58382                             | 1951                    | 206                    | 9.5                                | 283                                      | 29.9                                     |
| 38 WHITMAN COLLEGE            | 31598                             | 1169                    | 92                     | 12.7                               | 343                                      | 27.0                                     |
| 39 TRINITY COLLEGE CONN       | 44373                             | 1679                    | 57                     | 29.5                               | 778                                      | 26.4                                     |
| 40 UNIV OF RICHMOND           | 86768                             | 3312                    | 295                    | 11.2                               | 294                                      | 26.2                                     |
| 41 HAMILTON COLLEGE           | 39544                             | 1630                    | 138                    | 11.8                               | 287                                      | 24.3                                     |
| 42 NORTHWESTERN UNIV          | 322286                            | 13314                   | 1508                   | 8.8                                | 214                                      | 24.2                                     |
| 43 LAWRENCE UNIV              | 26150                             | 1085                    | 105                    | 10.3                               | 249                                      | 24.1                                     |
| 44 UNIV OF NOTRE DAME         | 203767                            | 8866                    | 851                    | 10.4                               | 239                                      | 23.0                                     |
| 45 CARNEGIE MELLON UNIV       | 124176                            | 5408                    | 413                    | 13.1                               | 301                                      | 23.0                                     |
| 46 VANDERBILT UNIV            | 183889                            | 8068                    | 1279                   | 6.3                                | 144                                      | 22.8                                     |
| 47 BRANDEIS UNIV              | 71931                             | 3400                    | 355                    | 9.6                                | 203                                      | 21.2                                     |
| 48 DAVIDSON COLLEGE           | 28906                             | 1393                    | 105                    | 13.3                               | 275                                      | 20.8                                     |
| 49 CORNELL COLLEGE            | 18665                             | 907                     | 71                     | 12.8                               | 263                                      | 20.6                                     |
| 50 CASE WESTERN RESERVE UNIV  | 141222                            | 7228                    | 1354                   | 5.3                                | 104                                      | 19.5                                     |
| 51 WAKE FOREST UNIV           | 89151                             | 4676                    | 645                    | 7.2                                | 138                                      | 19.1                                     |
| 52 WILLAMETTE UNIV            | 34118                             | 1833                    | 123                    | 14.9                               | 277                                      | 18.6                                     |
| 53 CORNELL UNIV               | 317592                            | 17158                   | 1539                   | 11.1                               | 206                                      | 18.5                                     |
| 54 HENDRIX COLLEGE            | 17879                             | 966                     | 59                     | 16.4                               | 303                                      | 18.5                                     |
| 55 KNOX COLLEGE               | 17573                             | 956                     | 79                     | 12.1                               | 222                                      | 18.4                                     |
| 56 COLORADO COLLEGE           | 34720                             | 1900                    | 150                    | 12.7                               | 231                                      | 18.3                                     |
| 57 DREW UNIV                  | 33860                             | 1939                    | 110                    | 17.6                               | 308                                      | 17.5                                     |
| 58 COLBY COLLEGE              | 29104                             | 1673                    | 126                    | 13.3                               | 231                                      | 17.4                                     |
| 59 WELLS COLLEGE              | 8943                              | 515                     | 58                     | 8.9                                | 154                                      | 17.4                                     |
| 60 BERRY COLLEGE              | 24012                             | 1435                    | 134                    | 10.7                               | 179                                      | 16.7                                     |
| 61 DUKE UNIV                  | 151381                            | 9073                    | 1375                   | 6.6                                | 110                                      | 16.7                                     |
| 62 WORCESTER POLYTECHNIC INST | 42694                             | 2580                    | 192                    | 13.4                               | 222                                      | 16.5                                     |
| 63 COLGATE UNIV               | 41415                             | 2600                    | 222                    | 11.7                               | 187                                      | 15.9                                     |
| 64 RENSSELAER POLYTECH INST   | 94191                             | 5915                    | 395                    | 15.0                               | 238                                      | 15.9                                     |
| 65 SPELMAN COLLEGE            | 22721                             | 1447                    | 105                    | 13.8                               | 216                                      | 15.7                                     |
| 66 BATES COLLEGE              | 22200                             | 1445                    | 102                    | 14.2                               | 218                                      | 15.4                                     |
| 67 ALMA COLLEGE               | 15771                             | 1079                    | 73                     | 14.8                               | 216                                      | 14.6                                     |
| 68 REED INSTITUTE             | 15220                             | 1068                    | 90                     | 11.9                               | 169                                      | 14.3                                     |
| 69 COLLEGE OF WOOSTER         | 23912                             | 1720                    | 125                    | 13.8                               | 191                                      | 13.9                                     |
| 70 BUCKNELL UNIV              | 42994                             | 3100                    | 215                    | 14.4                               | 200                                      | 13.9                                     |

1982 ENDOWMENT SUPPORT  
RANKING BASED ON ENDOWMENT PER FULL-TIME EQUIVALENT STUDENT  
FOR INDEPENDENT INSTITUTIONS ONLY

| Institution                       | 1982<br>Endowment<br>In \$1,000's | # Of<br>FTE<br>Students | # Of<br>FTE<br>Faculty | Ratio Of<br>Students<br>To Faculty | Endowment<br>Per Faculty<br>In \$1,000's | Endowment<br>Per Student<br>In \$1,000's |
|-----------------------------------|-----------------------------------|-------------------------|------------------------|------------------------------------|------------------------------------------|------------------------------------------|
| 71 SOUTHERN METHODIST UNIV        | 110368                            | 8029                    | 603                    | 13.3                               | 183                                      | 13.7                                     |
| 72 LEHIGH UNIV                    | 70905                             | 5358                    | 342                    | 15.7                               | 207                                      | 13.2                                     |
| 73 WHEATON COLLEGE                | 16381                             | 1246                    | 101                    | 12.3                               | 162                                      | 13.1                                     |
| 74 DOANE COLLEGE                  | 7820                              | 596                     | 46                     | 13.0                               | 170                                      | 13.1                                     |
| 75 RHODE ISLAND SCHOOL OF DESIGN  | 20670                             | 1648                    | 115                    | 14.3                               | 180                                      | 12.5                                     |
| 76 DENISON UNIV                   | 25567                             | 2085                    | 159                    | 13.1                               | 161                                      | 12.3                                     |
| 77 BIRMINGHAM SOUTHERN COLLEGE    | 17615                             | 1467                    | 95                     | 15.4                               | 185                                      | 12.0                                     |
| 78 UNIV OF PENN                   | 218250                            | 18278                   | 1585                   | 11.5                               | 138                                      | 11.9                                     |
| 79 HAMPTON INSTITUTE              | 36031                             | 3114                    | 230                    | 13.5                               | 157                                      | 11.6                                     |
| 80 KALAMAZOO COLLEGE              | 14579                             | 1367                    | 87                     | 15.7                               | 168                                      | 10.7                                     |
| 81 OHIO WESLEYAN UNIV             | 20363                             | 1963                    | 156                    | 12.6                               | 131                                      | 10.4                                     |
| 82 SAINT MARYS COLLEGE            | 18357                             | 1799                    | 144                    | 12.5                               | 127                                      | 10.2                                     |
| 83 COLUMBIA UNIV TEACHERS COLLEGE | 26309                             | 2600                    | 150                    | 17.3                               | 175                                      | 10.1                                     |
| 84 BAYLOR UNIVERSITY              | 101639                            | 10108                   | 491                    | 20.6                               | 207                                      | 10.1                                     |
| 85 SIMMONS COLLEGE                | 24448                             | 2763                    | 183                    | 15.1                               | 134                                      | 8.8                                      |
| 86 LOYOLA UNIV OF CHICAGO         | 95059                             | 10982                   | 660                    | 16.6                               | 144                                      | 8.7                                      |
| 87 FRANKLIN AND MARSHALL COLLEGE  | 16825                             | 1993                    | 136                    | 14.7                               | 124                                      | 8.4                                      |
| 88 CLARK UNIV                     | 15128                             | 1950                    | 143                    | 13.6                               | 106                                      | 7.8                                      |
| 89 FURMAN UNIV                    | 17711                             | 2328                    | 152                    | 15.3                               | 117                                      | 7.6                                      |
| 90 MCGILL UNIV                    | 147700                            | 19452                   | 964                    | 20.2                               | 153                                      | 7.6                                      |
| 91 CONNECTICUT COLLEGE            | 13130                             | 1749                    | 138                    | 12.7                               | 95                                       | 7.5                                      |
| 92 TULANE UNIV                    | 67679                             | 9206                    | 812                    | 11.3                               | 83                                       | 7.4                                      |
| 93 GEORGETOWN UNIV                | 76479                             | 10500                   | 1015                   | 10.3                               | 75                                       | 7.3                                      |
| 94 UNIV OF SOUTHERN CALIF         | 182925                            | 26262                   | 1119                   | 23.5                               | 163                                      | 7.0                                      |
| 95 WITTENBERG UNIV                | 15199                             | 2259                    | 151                    | 15.0                               | 101                                      | 6.7                                      |
| 96 SAINT LOUIS UNIV               | 55572                             | 8298                    | 820                    | 10.1                               | 68                                       | 6.7                                      |
| 97 ALLEGHENY COLLEGE              | 12495                             | 1902                    | 135                    | 14.1                               | 93                                       | 6.6                                      |
| 98 UNIV OF PUGET SOUND            | 17815                             | 2728                    | 159                    | 17.2                               | 112                                      | 6.5                                      |
| 99 DICKINSON COLLEGE              | 11254                             | 1739                    | 142                    | 12.2                               | 79                                       | 6.5                                      |
| 100 MUHLENBERG COLLEGE            | 10199                             | 1586                    | 106                    | 15.0                               | 96                                       | 6.4                                      |
| 101 BABSON COLLEGE                | 8468                              | 1351                    | 95                     | 14.2                               | 89                                       | 6.3                                      |
| 102 BALDWIN WALLACE COLLEGE       | 14750                             | 2443                    | 133                    | 18.4                               | 111                                      | 6.0                                      |
| 103 ST NORBERT COLLEGE            | 9698                              | 1664                    | 84                     | 19.8                               | 115                                      | 5.8                                      |
| 104 ALFRED UNIVERSITY             | 7905                              | 1358                    | 113                    | 12.0                               | 70                                       | 5.8                                      |
| 105 UNIV OF SANTA CLARA           | 32168                             | 5665                    | 284                    | 19.9                               | 113                                      | 5.7                                      |
| 106 ROLLINS COLLEGE               | 7505                              | 1371                    | 104                    | 13.2                               | 72                                       | 5.5                                      |

1982 ENDOWMENT SUPPORT  
RANKING BASED ON ENDOWMENT PER FULL-TIME EQUIVALENT STUDENT  
FOR INDEPENDENT INSTITUTIONS ONLY

| Institution                       | 1982<br>Endowment<br>In \$1,000's | # Of<br>FTE<br>Students | # Of<br>FTE<br>Faculty | Ratio Of<br>Students<br>To Faculty | Endowment<br>Per Faculty<br>In \$1,000's | Endowment<br>Per Student<br>In \$1,000's |
|-----------------------------------|-----------------------------------|-------------------------|------------------------|------------------------------------|------------------------------------------|------------------------------------------|
| 107 ROCHESTER INST OF TECH        | 58622                             | 10938                   | 791                    | 13.8                               | 74                                       | 5.4                                      |
| 108 MORAVIAN COLLEGE              | 6869                              | 1326                    | 90                     | 14.7                               | 76                                       | 5.2                                      |
| 109 WENTWORTH INST OF TECH        | 13695                             | 2898                    | 167                    | 17.4                               | 82                                       | 4.7                                      |
| 110 NORWICH UNIV                  | 10941                             | 2370                    | 140                    | 16.9                               | 78                                       | 4.6                                      |
| 111 TRINITY COLLEGE WASH          | 2635                              | 572                     | 100                    | 5.7                                | 26                                       | 4.6                                      |
| 112 PRATT INSTITUTE               | 16130                             | 3583                    | 265                    | 13.5                               | 61                                       | 4.5                                      |
| 113 MERCER UNIV                   | 18208                             | 4521                    | 302                    | 15.0                               | 60                                       | 4.0                                      |
| 114 OTTERBEIN COLLEGE             | 5065                              | 1331                    | 104                    | 12.8                               | 49                                       | 3.8                                      |
| 115 SKIDMORE COLLEGE              | 8094                              | 2220                    | 177                    | 12.5                               | 46                                       | 3.6                                      |
| 116 AMERICAN UNIVERSITY OF BEIRUT | 15183                             | 4250                    | 390                    | 10.9                               | 39                                       | 3.6                                      |
| 117 UNIV OF TULSA                 | 17495                             | 5055                    | 289                    | 17.5                               | 61                                       | 3.5                                      |
| 118 UNIV OF DENVER                | 25351                             | 7362                    | 483                    | 15.2                               | 52                                       | 3.4                                      |
| 119 SYRACUSE UNIV                 | 56012                             | 17037                   | 1019                   | 16.7                               | 55                                       | 3.3                                      |
| 120 HOPE COLLEGE                  | 7460                              | 2270                    | 146                    | 15.5                               | 51                                       | 3.3                                      |
| 121 BRYANT COLLEGE OF BUS ADMIN   | 9280                              | 2900                    | 109                    | 26.6                               | 85                                       | 3.2                                      |
| 122 KENYON COLLEGE                | 4318                              | 1434                    | 105                    | 13.7                               | 41                                       | 3.0                                      |
| 123 OHIO NORTHERN UNIV            | 7646                              | 2709                    | 174                    | 15.6                               | 44                                       | 2.8                                      |
| 124 CLARKSON COLLEGE              | 10475                             | 3869                    | 202                    | 19.2                               | 52                                       | 2.7                                      |
| 125 BOSTON UNIVERSITY             | 55064                             | 21298                   | 1755                   | 12.1                               | 31                                       | 2.6                                      |
| 126 WASHBURN COLLEGE              | 10560                             | 4159                    | 241                    | 17.3                               | 44                                       | 2.5                                      |
| 127 DRAKE UNIV                    | 11523                             | 5351                    | 308                    | 17.4                               | 37                                       | 2.2                                      |
| 128 MARQUETTE UNIV                | 21031                             | 9859                    | 667                    | 14.8                               | 32                                       | 2.1                                      |
| 129 GEORGE WASHINGTON UNIV        | 21187                             | 11607                   | 939                    | 12.4                               | 23                                       | 1.8                                      |
| 130 UNIV OF EVANSVILLE            | 5864                              | 3339                    | 252                    | 13.3                               | 23                                       | 1.8                                      |
| 131 UNIV OF SCRANTON              | 6411                              | 3798                    | 180                    | 21.1                               | 36                                       | 1.7                                      |
| 132 PHIL C OF TEXT & SC           | 3478                              | 2361                    | 161                    | 14.7                               | 22                                       | 1.5                                      |
| 133 UNIV OF TAMPA                 | 2222                              | 1672                    | 89                     | 18.8                               | 25                                       | 1.3                                      |
| 134 RUSSELL SAGE COLLEGE          | 3840                              | 3313                    | 216                    | 15.3                               | 18                                       | 1.2                                      |
| 135 UNIV OF DAYTON                | 11132                             | 9780                    | 373                    | 26.2                               | 30                                       | 1.1                                      |
| 136 CANISUS COLLEGE               | 3482                              | 3564                    | 192                    | 18.6                               | 18                                       | 1.0                                      |
| 137 CHAPMAN COLLEGE               | 3554                              | 4297                    | 110                    | 39.1                               | 32                                       | 0.8                                      |



Table 57

1982 ENDOWMENT SUPPORT  
RANKING BASED ON ENDOWMENT PER FULL-TIME EQUIVALENT STUDENT  
FOR PUBLIC INSTITUTIONS ONLY

| Institution                         | 1982<br>Endowment<br>In \$1,000's | # Of<br>FTE<br>Students | # Of<br>FTE<br>Faculty | Ratio Of<br>Students<br>To Faculty | Endowment<br>Per Faculty<br>In \$1,000's | Endowment<br>Per Student<br>In \$1,000's |
|-------------------------------------|-----------------------------------|-------------------------|------------------------|------------------------------------|------------------------------------------|------------------------------------------|
| 1 UNIV OF VIRGINIA                  | 154228                            | 16247                   | 932                    | 17.4                               | 165                                      | 9.5                                      |
| 2 UNIV OF DELAWARE                  | 119168                            | 15722                   | 841                    | 18.7                               | 142                                      | 7.6                                      |
| 3 UNIV OF CINCINNATI                | 103421                            | 27100                   | 2016                   | 13.4                               | 51                                       | 3.8                                      |
| 4 UNIV OF PITTSBURGH                | 98262                             | 26779                   | 2360                   | 11.3                               | 42                                       | 3.7                                      |
| 5 UNIV OF VERMONT                   | 27644                             | 9269                    | 773                    | 12.0                               | 36                                       | 3.0                                      |
| 6 UNIV OF NORTH CAROLINA            | 41377                             | 19866                   | 1880                   | 10.6                               | 22                                       | 2.1                                      |
| 7 UNIV OF TENNESSEE AT CHATTANOOGA  | 11279                             | 5804                    | 311                    | 18.7                               | 36                                       | 1.9                                      |
| 8 KANSAS UNIV END ASSOC             | 41873                             | 22020                   | 1323                   | 16.6                               | 32                                       | 1.9                                      |
| 9 OHIO STATE UNIV                   | 94165                             | 52710                   | 3361                   | 15.7                               | 28                                       | 1.8                                      |
| 10 OHIO UNIV                        | 25155                             | 15005                   | 710                    | 21.1                               | 35                                       | 1.7                                      |
| 11 UNIV OF NEVADA SYSTEM            | 13746                             | 9242                    | 330                    | 28.0                               | 42                                       | 1.5                                      |
| 12 RUTGERS THE STATE UNIV           | 49404                             | 38146                   | 2500                   | 15.3                               | 20                                       | 1.3                                      |
| 13 COLLEGE OF WILLIAM AND MARY      | 7608                              | 6039                    | 436                    | 13.9                               | 17                                       | 1.3                                      |
| 14 AUBURN UNIV                      | 18511                             | 17125                   | 1027                   | 16.7                               | 18                                       | 1.1                                      |
| 15 NORTH CAROLINA STATE UNIV        | 17957                             | 16868                   | 1377                   | 12.2                               | 13                                       | 1.1                                      |
| 16 UNIV OF HOUSTON SYSTEM           | 31952                             | 33297                   | 1218                   | 27.3                               | 26                                       | 1.0                                      |
| 17 UNIV OF MISSOURI                 | 42108                             | 44437                   | 2552                   | 17.4                               | 16                                       | 0.9                                      |
| 18 TEMPLE UNIV                      | 12187                             | 21956                   | 1680                   | 13.1                               | 7                                        | 0.6                                      |
| 19 UNIV OF MAINE                    | 11307                             | 20657                   | 1260                   | 16.4                               | 9                                        | 0.5                                      |
| 20 UNIV OF ARKANSAS AT FAYETTEVILLE | 7938                              | 15637                   | 682                    | 22.9                               | 12                                       | 0.5                                      |
| 21 MICHIGAN STATE UNIV              | 16305                             | 39343                   | 2451                   | 16.1                               | 7                                        | 0.4                                      |
| 22 UNIV OF MARYLAND                 | 19501                             | 55995                   | 2850                   | 19.6                               | 7                                        | 0.3                                      |
| 23 WASHINGTON STATE UNIV            | 5787                              | 16827                   | 1034                   | 16.3                               | 6                                        | 0.3                                      |
| 24 UNIV OF AKRON                    | 5956                              | 17927                   | 719                    | 24.9                               | 8                                        | 0.3                                      |
| 25 PENN STATE UNIV                  | 18848                             | 63324                   | 3140                   | 20.2                               | 6                                        | 0.3                                      |
| 26 OREGON STATE BD OF HIGHER ED     | 14901                             | 53271                   | 5110                   | 10.4                               | 3                                        | 0.3                                      |
| 27 INDIANA UNIV                     | 14076                             | 55540                   | 3301                   | 16.8                               | 4                                        | 0.3                                      |
| 28 OCEAN COUNTY COLLEGE             | 738                               | 3863                    | 172                    | 22.5                               | 4                                        | 0.2                                      |
| 29 UNIV OF MISSISSIPPI              | 1713                              | 9287                    | 532                    | 17.5                               | 3                                        | 0.2                                      |
| 30 WESTERN MICH UNIV                | 2680                              | 14794                   | 841                    | 17.6                               | 3                                        | 0.2                                      |
| 31 EASTERN MICHIGAN UNIV            | 1881                              | 14009                   | 713                    | 19.6                               | 3                                        | 0.1                                      |
| 32 UNIV OF CONNECTICUT              | 1717                              | 16658                   | 1281                   | 13.0                               | 1                                        | 0.1                                      |
| 33 ARIZONA STATE UNIV               | 2352                              | 30036                   | 1416                   | 21.2                               | 2                                        | 0.1                                      |
| 34 UNIV OF MASSACHUSETTS            | 2238                              | 29521                   | 2387                   | 12.4                               | 1                                        | 0.1                                      |

INVESTMENT MANAGEMENT AND CUSTODY MATTERSInvestment Management

Twenty-seven of the institutions reporting indicated that they manage at least 80% of their endowments internally. Exhibit V lists these, along with the institutions which use outside management and their respective advisors. The exhibit indicates whether the outside manager is retained for stock (S) or bond (B) management or both (S,B). One hundred and six institutions indicated that they have more than one stock manager and 77 had more than one bond manager. The foregoing does not include the institutions which use The Common Fund for Non-Profit Organizations as an investment advisor for stocks, bonds, or cash. The 27 internally managed institutions are fairly well distributed among the various size investment pool categories shown in Table 58, with the greatest concentration among the largest pools.

Table 58

Internal Investment Management

| <u>Investment Pool Size</u> | <u>Number in Each Group</u> | <u>Percentage of Total</u> |
|-----------------------------|-----------------------------|----------------------------|
| Over \$100 million          | 9                           | 33%                        |
| \$50 to \$100 million       | 3                           | 11                         |
| \$25 to \$50 million        | 4                           | 15                         |
| \$10 to \$25 million        | 6                           | 22                         |
| 5 to \$10 million           | 1                           | 4                          |
| Under \$5 million           | <u>4</u>                    | <u>15</u>                  |
| TOTAL                       | <u>27</u>                   | <u>100%</u>                |

Custodial Arrangements

Only five institutions indicated that they serve as their own custodian for at least 80% of their assets. These institutions are shown in Exhibit IV as are the institutions which use outside custodians and the respective financial institution retained. Of the 185 indicating they use outside custodians, 75 use more than one custodian.

Custodial Fees

About two dozen institutions indicated that their custodian is also their investment advisor and that it was not possible to identify separately the cost for each service. Excluding these institutions and the five institutions which do not use outside custodians, 138 institutions provided information on custody fees. These fees excluded any custody costs relating to security lending, option writing, or investment management.

It is difficult to find an accurate measure to compare institutional custody fees. This is because many special arrangements have developed between institutions and their custodians. For example, from earlier surveys it is known that institutions with longer custodial relations tend

to pay less. Custodial fees will also vary because of the different number of security positions and shares, etc. The foregoing should be taken into consideration when reviewing custodial fees which are compared based on fees paid as a percentage of assets under custody.

Table 59 shows that the average institution pays 0.067% of the market value of assets under custody. Seven institutions pay less than 0.01%, 15 others pay 0.01 and 0.02%, etc. There appears to be a realization of economies of scale, as institutions over \$50 million pay 0.040%, institutions between \$10 and \$50 million pay 0.071%, and institutions under \$10 million pay 0.163%.

Table 59

Custodial Fees as a Percentage of Assets under Custody

|                  | <u>Under \$10<br/>Million</u> | <u>\$10 to \$50<br/>Million</u> | <u>Over \$50<br/>Million</u> | <u>All<br/>Institutions</u> |
|------------------|-------------------------------|---------------------------------|------------------------------|-----------------------------|
| Under .01%       | 3                             | 4                               | 0                            | 7                           |
| .01 to .02%      | 6                             | 8                               | 1                            | 15                          |
| .02 to .03%      | 4                             | 5                               | 0                            | 9                           |
| .03 to .04%      | 12                            | 3                               | 0                            | 15                          |
| .04 to .05%      | 6                             | 4                               | 1                            | 11                          |
| .05 to .06%      | 0                             | 6                               | 0                            | 6                           |
| .06 to .07%      | 5                             | 4                               | 1                            | 10                          |
| .07 to .08%      | 1                             | 4                               | 0                            | 5                           |
| .08 to .09%      | 0                             | 3                               | 2                            | 5                           |
| .09 to .10%      | 2                             | 4                               | 2                            | 8                           |
| .10 to .125%     | 1                             | 8                               | 0                            | 9                           |
| .125 to .15%     | 1                             | 3                               | 3                            | 7                           |
| .15 to .175%     | 2                             | 4                               | 2                            | 8                           |
| .175 to .20%     | 1                             | 2                               | 1                            | 4                           |
| Over .20%        | <u>2</u>                      | <u>7</u>                        | <u>10</u>                    | <u>19</u>                   |
| TOTAL            | <u>46</u>                     | <u>69</u>                       | <u>23</u>                    | <u>138</u>                  |
| Median Responses | 0.040%                        | 0.071%                          | 0.163%                       | 0.067%                      |

INVESTMENT POLICY AND PRACTICE

Investment Policy Statement

One hundred and forty-two institutions, 76% of the 188 reporting, indicated they have a written statement of investment objectives.

Option Writing

Twenty-nine institutions reported they participate in the call option market, two of which participate in the put option market as well. Twenty (three more than last year) reported they began writing call options and stopped, and about two dozen presently have this matter under consideration. Of the remaining institutions, about half considered writing options and rejected the idea and about half did not consider writing options. The market size distribution of those using options is shown in Table 60.

Some institutions use options in a very specific way, such as writing only on special holdings, or as part of a sale strategy. About half the remaining institutions have pilot option writing programs on a fully "covered" basis, and half write options on their mainstream endowment holdings. Certain programs are considered incremental, or "override," programs, forbidding stocks from being called away. These consequently are structured to have no effect on the underlying equity investment. The 29 institutions place various parameters on their approach to the options market, some which are as follows:

- . Write covered options on stocks already in their portfolio.
- . Write covered options on up to a specific percentage of their portfolio (e.g., 5%, 10%, or 20%).
- . Write covered options on up to a specific percentage of their total portfolio (e.g., 2.5%, 5%, 10%, or 20%).
- . Write covered options on up to a specific dollar amount (e.g., \$1.25, \$2.50, \$5, or \$10 million).
- . Write options only on securities they would consider selling anyway.
- . Write options on up to half of internally managed holdings, on a maximum of 20 different securities.
- . Write options on a percentage of an existing position (e.g., 10%, 25%, or 50%).
- . Segregate cash to buy stocks and write options on issues of manager's approved list.
- . Options must be repurchased; securities cannot be called.
- . Sell put options on up to a specific dollar amount of assets.

Over half the institutions participating in the option market have been doing so for at least three years, as shown in Table 60.

Table 60

Size of Institutions  
Participating in Stock Option Writing at June 30, 1982

| <u>Endowment Size</u> | <u>Number Participating</u> | <u>Percentage Participating</u> |
|-----------------------|-----------------------------|---------------------------------|
| Over \$100 Million    | 9                           | 31%                             |
| \$50 to \$100 Million | 8                           | 28                              |
| \$25 to \$50 Million  | 2                           | 7                               |
| \$10 to \$25 Million  | 5                           | 17                              |
| \$5 to \$10 Million   | 4                           | 14                              |
| Under \$5 Million     | <u>1</u>                    | <u>3</u>                        |
| TOTAL                 | <u>29</u>                   | <u>100%</u>                     |

### Venture Capital

Of the 180 institutions responding to this question, 32, or 18%, have made investments in venture capital. All but one of these institutions are independent. Generally speaking, as shown in Table 61, the larger institutions have been more active in this area. Total venture capital investments represent less than 5% of total June 30, 1982 endowment assets.

Table 61

Range of Responses for All Institutions of  
Venture Capital Investments  
as a Percentage of June 30, 1982 Endowment Assets

| <u>Percentage of</u><br><u>Endowment</u> | <u>Over \$100</u><br><u>Million</u> | <u>\$50-\$100</u><br><u>Million</u> | <u>\$25-\$50</u><br><u>Million</u> | <u>\$10-\$25</u><br><u>Million</u> | <u>\$5-\$10</u><br><u>Million</u> | <u>Under \$5</u><br><u>Million</u> | <u>Total</u> |
|------------------------------------------|-------------------------------------|-------------------------------------|------------------------------------|------------------------------------|-----------------------------------|------------------------------------|--------------|
| Under 1%                                 | 4                                   | 1                                   | 0                                  | 1                                  | 1                                 | 0                                  | 7            |
| 1 - 2.5%                                 | 9                                   | 1                                   | 0                                  | 1                                  | 0                                 | 0                                  | 11           |
| 2.5 - 5%                                 | 6                                   | 0                                   | 3                                  | 2                                  | 0                                 | 0                                  | 11           |
| 5 - 7.5%                                 | 1                                   | 0                                   | 1                                  | 0                                  | 0                                 | 0                                  | 2            |
| 7.5% - 10%                               | 0                                   | 0                                   | 0                                  | 0                                  | 0                                 | 0                                  | 0            |
| Over 10%                                 | 0                                   | 1                                   | 0                                  | 0                                  | 0                                 | 0                                  | 1            |
| TOTAL                                    | <u>20</u>                           | <u>3</u>                            | <u>4</u>                           | <u>4</u>                           | <u>1</u>                          | <u>0</u>                           | <u>32</u>    |

Institutions responding positively to investing in venture capital were also asked to indicate if assets were valued at book or market (estimated fair value), and whether venture capital assets were included in the institution's performance measurement pool reported in Section I. Thirteen of 31 responding (42%) carry their venture investments at market or estimated fair value. Twenty-two of 31 (71%) include these assets in their performance measurement pool. Half of those 22 carry venture capital assets at book and half at market.

### Futures Market

Only four institutions indicated they use "financial futures" as a tool in managing the fixed-income portion of their portfolio. One institution invested in gold futures, and one invested in corn and hog commodity futures.

### Investment in Gold

Only three institutions of the 181 responding to this question indicated they invest in gold stocks. Four others invest in companies with significant exposure to gold that might be considered a gold play. No institution invested in gold coins, although two stated they have chosen to retain, as an investment, gold and other coins received as part of a collection from donors. As noted above, one institution invests in gold futures.

### Foreign Investments

Of the 185 institutions responding to this question, 91, or 49%, indicated they permit investment in foreign securities. Another 19, or 10%, allow such investments by exception. Seventy-one, or 38%, do not permit such investments and two others are considering foreign security investments.



Of the 91 institutions that indicated they permit endowment investment in foreign securities, forty-six (51%) have actually made such investments. A summary of responses is shown in Table 62.

Table 62

Assets Invested in Foreign Securities  
as a Percentage of June 30, 1982 Endowment

|               | <u>Over \$50</u><br><u>Million</u> | <u>\$10-\$50</u><br><u>Million</u> | <u>Under \$10</u><br><u>Million</u> | <u>Independent</u><br><u>Institutions</u> | <u>Public</u><br><u>Institutions</u> | <u>All</u><br><u>Institutions</u> |
|---------------|------------------------------------|------------------------------------|-------------------------------------|-------------------------------------------|--------------------------------------|-----------------------------------|
| Less than .5% | 5                                  | 6                                  | 0                                   | 10                                        | 1                                    | 11                                |
| .5% to 1%     | 4                                  | 3                                  | 0                                   | 6                                         | 1                                    | 7                                 |
| 1% to 1.5%    | 7                                  | 2                                  | 1                                   | 9                                         | 1                                    | 10                                |
| 1.5% to 2.0%  | 0                                  | 2                                  | 0                                   | 2                                         | 0                                    | 2                                 |
| 2.0% to 2.5%  | 2                                  | 1                                  | 0                                   | 3                                         | 0                                    | 3                                 |
| 2.5% to 3.0%  | 1                                  | 0                                  | 1                                   | 1                                         | 1                                    | 2                                 |
| 3.0% to 3.5%  | 2                                  | 2                                  | 0                                   | 3                                         | 1                                    | 4                                 |
| 3.5% to 4.0%  | 0                                  | 2                                  | 0                                   | 1                                         | 1                                    | 2                                 |
| 4.0% to 4.5%  | 1                                  | 1                                  | 0                                   | 2                                         | 0                                    | 2                                 |
| 4.5% to 5.0%  | 0                                  | 0                                  | 0                                   | 0                                         | 0                                    | 0                                 |
| Over 5.0%     | <u>2</u>                           | <u>1</u>                           | <u>0</u>                            | <u>3</u>                                  | <u>0</u>                             | <u>3</u>                          |
| TOTAL         | 24                                 | 20                                 | 2                                   | 40                                        | 6                                    | 46                                |

South African Investments

One hundred twenty of the institutions responding to this question, or 63%, indicated they do not have a specific policy relating to U.S. companies that are doing business in the Republic of South Africa or a policy affecting the direct investment in South African companies. Seventy, or 37%, responded that they do have such a policy. Their statements are too lengthy to report in this survey.



EXHIBIT I1982 NACUBO COMPARATIVE PERFORMANCE STUDY194 PARTICIPATING INSTITUTIONS (REPRESENTING 218 POOLS)

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| Academy of the New Church             | Franklin and Marshall College       |
| Agnes Scott College                   | Furman University                   |
| Alfred University                     | George Washington University        |
| Allegheny College                     | Georgetown University               |
| Alma College                          | Grinnell College                    |
| American University of Beirut         | Hamilton College                    |
| Amherst College                       | Hampton Institute                   |
| Arizona State University              | Harvard University                  |
| Babson College                        | Haverford College                   |
| Baldwin-Wallace College               | Hendrix College                     |
| Bates College                         | Hollins College                     |
| Baylor College of Medicine            | Hope College                        |
| Berea College                         | Howard University                   |
| Berry College                         | Indiana University                  |
| Boston University                     | Johns Hopkins University            |
| Brandeis University                   | Kalamazoo College                   |
| Brown University                      | Kansas Univ Endowment Association   |
| Bryant College                        | Kenyon College                      |
| Bryn Mawr College                     | Knox College                        |
| Bucknell University                   | Lafayette College                   |
| California Institute of Technology    | Lawrence University                 |
| Canisius College                      | Lehigh University                   |
| Carleton College                      | Loyola University of Chicago        |
| Carnegie-Mellon University            | McGill University                   |
| Case Western Reserve University       | Marquette University                |
| Claremont McKenna College             | Massachusetts Institute of Tech.    |
| Clark University                      | Medical College of Pennsylvania     |
| Clarkson College of Technology        | Mercer University                   |
| Colby College                         | Miami University                    |
| Colgate University                    | Michigan State University           |
| College of William & Mary             | Middlebury College                  |
| College of Wooster                    | Monmouth College                    |
| Colorado College                      | Moravian College                    |
| Columbia University                   | Mount Holyoke College               |
| Columbia University, Teachers College | Muhlenberg College                  |
| Connecticut College                   | Newberry College                    |
| Cooper Union                          | New York University                 |
| Cornell College                       | North Carolina State University     |
| Cornell University                    | Northwestern University             |
| Dartmouth College                     | Norwich University                  |
| Davidson College                      | Oberlin College                     |
| Denison University                    | Occidental College                  |
| Dickinson College                     | Ocean County College                |
| Doane College                         | Ohio Northern University            |
| Drake University                      | Ohio State University               |
| Drew University                       | Ohio University                     |
| Duke University                       | Ohio Wesleyan University            |
| Earlham College                       | Oregon State Board of Higher Ed.    |
| Eastern Michigan State University     | Otterbein College                   |
| Emory University                      | Pennsylvania State University       |
| Endowment Assoc. of William & Mary    | Philadelphia College of Pharm & Sc. |

|                                       |                                     |
|---------------------------------------|-------------------------------------|
| Philadelphia College of Tex. & Sc.    | University of Iowa                  |
| Pomona College                        | University of Maine                 |
| Pratt Institute                       | University of Maryland              |
| Princeton University                  | University of Massachusetts         |
| Radcliffe College                     | University of Miami                 |
| Reed College                          | University of Michigan              |
| Rensselaer Polytechnic Institute      | University of Mississippi           |
| Rhode Island School of Design         | University of Missouri              |
| Rice University                       | University of Nebraska              |
| Rochester Institute of Technology     | University of North Carolina        |
| Rockefeller University                | University of Notre Dame            |
| Rockhurst College                     | University of Pennsylvania          |
| Rollins College                       | University of Pittsburgh            |
| Russell Sage College                  | University of Puget Sound           |
| Rutgers, The State University of N.J. | University of Richmond              |
| St. Louis University                  | University of Santa Clara           |
| St. Mary's College                    | University of Scranton              |
| St. Norbert College                   | University of Southern California   |
| Simmons College                       | University of Tampa                 |
| Skidmore College                      | University of Tennessee-Chattanooga |
| Smith College                         | University of Tennessee-Knoxville   |
| Southern Methodist University         | University of Texas                 |
| Southwestern University               | University of Tulsa                 |
| Spelman College                       | University of Utah                  |
| Stanford University                   | University of Vermont               |
| State University of New York          | University of Virginia              |
| Swarthmore College                    | University of Wisconsin Foundation  |
| Sweet Briar College                   | University of Wisconsin System      |
| Syracuse University                   | Vanderbilt University               |
| Temple University                     | Vassar College                      |
| Thomas Jefferson University           | Wake Forest University              |
| Trinity College (Conn.)               | Washburn College                    |
| Tulane University                     | Washington State University         |
| University of Akron                   | Washington University               |
| University of Alabama System          | Wellesley College                   |
| University of Arizona                 | Wells College                       |
| University of Arkansas                | Wentworth Institute of Technology   |
| University of Chicago                 | Wesleyan University                 |
| University of Cincinnati              | Western Michigan University Fdn.    |
| University of Connecticut             | Wheaton College                     |
| University of Dayton                  | Whitman College                     |
| University of Delaware                | Willamette College                  |
| University of Denver                  | Williams College                    |
| University of Evansville              | Wittenberg University               |
| University of Houston System          | Worcester Polytechnic Institute     |
| University of Illinois                | Yale University                     |

## EXHIBIT II

1982 COMPARATIVE PERFORMANCE STUDYCHARACTERISTICS OF PARTICIPATING INVESTMENT POOLSPool Characteristics:

- 1) This is a pooled fund consisting principally of endowment and similar funds.
- 2) This is a separately invested fund which was unitized to enable performance to be accurately measured.
- 3) This is a combination of more than one fund.
- 4) This is a pool consisting of only those assets over which management has discretion.
- 5) This is a pooled life income fund.

Pool Composition:

- 1) All invested funds, endowment, quasi-endowment, and funds invested for plant or other purposes but temporarily invested in the pool.
- 2) Endowment and quasi-endowment.
- 3) Endowment only.
- 4) Quasi-endowment only.

Investment Objectives:

- 1) Total Return - Investment returns are sought from both market appreciation and dividends and interest; current income requirements generally do not dictate the kind of securities that may be held, as primary emphasis is on long-term overall return.
- 2) Balanced - The pooled funds are invested in such a manner as to minimize investment risks without unduly sacrificing current income or the possibility for some long-term growth. This is usually done by investing a portion of the pool in fixed income securities.
- 3) Income Orientated - Investment policy is dictated by current income needs; market appreciation is never utilized for current operating purposes, and primary emphasis is on current income maximization.

Market Value:

- A. Over \$100 Million.
- B. \$50 to \$100 Million.
- C. \$25 to \$50 Million.
- D. \$10 to \$25 Million.
- E. \$5 to \$10 Million.
- F. Under \$5 Million.

1982 NACUBO COMPARATIVE PERFORMANCE STUDY  
CHARACTERISTICS OF PARTICIPATING INVESTMENT POOLS

| No. | Code<br>Name | Pool<br>Char | Pool<br>Compos | Invest<br>Object | Mkt Val<br>Size | %<br>Cash | %<br>Bonds | %<br>Stocks | %<br>Real<br>Estate | %<br>Miscel-<br>laneous | %<br>Non-<br>Control-<br>lable | Assets<br>1982 | 6/30/82<br># Bonds | 6/30/82<br># Stocks | 1982<br>Bond<br>Turn-<br>Over % | 1982<br>Stock<br>Turn-<br>Over % |
|-----|--------------|--------------|----------------|------------------|-----------------|-----------|------------|-------------|---------------------|-------------------------|--------------------------------|----------------|--------------------|---------------------|---------------------------------|----------------------------------|
| 1   | E1           | 1            | 2              | 1                | A               | 15        | 22         | 59          | 2                   | 2                       | 2                              | 2              | 45                 | 110                 | N/A                             | N/A                              |
| 2   | E2           | 1            | 3              | 2                | D               | 11        | 21         | 66          | 0                   | 2                       | 2                              | 2              | 25                 | 40                  | 71.4                            | 20.6                             |
| 3   | E3           | 1            | 2              | 1                | D               | 27        | 16         | 57          | 0                   | 0                       | 0                              | 0              | 22                 | 48                  | 13.6                            | 5.2                              |
| 4   | E4           | 1            | 2              | 1                | D               | 12        | 19         | 65          | 4                   | 0                       | 0                              | 0              | 17                 | 53                  | 42                              | 43                               |
| 5   | E5           | 1            | 2              | 1                | B               | 0         | 29         | 71          | 0                   | 0                       | 1                              | 1              | N/A                | N/A                 | N/A                             | N/A                              |
| 6   | E6           | 1            | 2              | 2                | B               | 9         | 42         | 49          | 0                   | 0                       | 0                              | 0              | 22                 | 136                 | 15.4                            | 22.8                             |
| 7   | E7           | 1            | 2              | 1                | F               | 28        | 34         | 39          | 0                   | 0                       | 1                              | 1              | N/A                | N/A                 | N/A                             | N/A                              |
| 8   | E8           | 1            | 2              | 1                | A               | 16        | 26         | 56          | 0                   | 3                       | 1                              | 1              | N/A                | 110                 | N/A                             | N/A                              |
| 9   | E9           | 1            | 3              | 2                | E               | 25        | 43         | 32          | 0                   | 0                       | 1                              | 1              | 9                  | 14                  | 141.3                           | 16.5                             |
| 10  | E10          | 1            | 2              | 1                | D               | 14        | 20         | 66          | 0                   | 0                       | 0                              | 0              | 14                 | 49                  | 43                              | 43                               |
| 11  | E11          | 3            | 1              | 1                | A               | 1         | 10         | 20          | 0.9                 | 68                      | 1                              | 1              | N/A                | N/A                 | N/A                             | N/A                              |
| 12  | E12          | 5            | 2              | 1                | F               | 25        | 22         | 54          | 0                   | 0                       | 0                              | 0              | 7                  | 26                  | 0                               | 8.8                              |
| 13  | E13          | 1            | 2              | 3                | D               | 18        | 52         | 28          | 0                   | 2                       | 1                              | 1              | 44                 | 51                  | 39.9                            | 38.3                             |
| 14  | E14          | 1            | 2              | 2                | D               | 8         | 16         | 69          | 0                   | 7                       | 7                              | 7              | 29                 | 43                  | 26                              | 9                                |
| 15  | E15          | 1            | 2              | 2                | C               | 8         | 27         | 45          | 12.8                | 7                       | 19                             | 19             | 24                 | 73                  | 5                               | 53                               |
| 16  | E16          | 1            | 2              | 1                | D               | 18        | 28         | 52          | 2                   | 1                       | 4                              | 4              | 11                 | 58                  | N/A                             | N/A                              |
| 17  | E17          | 1            | 2              | 2                | B               | 4         | 34         | 56          | 0                   | 6                       | 5                              | 5              | 42                 | 36                  | 91                              | 37                               |
| 18  | E18          | 1            | 1              | 1                | A               | 15        | 18         | 65          | 0                   | 3                       | 0                              | 0              | 52                 | 48                  | 12                              | 27                               |
| 19  | E19          | 4            | 1              | 1                | B               | 21        | 13         | 62          | 0                   | 3                       | 6                              | 6              | 18                 | 145                 | N/A                             | N/A                              |
| 20  | E20          | 1            | 2              | 1                | C               | 4         | 51         | 44          | 1                   | 0                       | 0                              | 0              | 37                 | 93                  | 22                              | 9                                |
| 21  | E21          | 1            | 2              | 2                | A               | 0         | 45         | 55          | 0                   | 0                       | 2                              | 2              | 55                 | 65                  | N/A                             | 1                                |
| 22  | E22          | 1            | 3              | 3                | D               | 14        | 49         | 37          | 0                   | 0                       | 1                              | 1              | 58                 | 43                  | 16.8                            | 10.7                             |
| 23  | E23          | 1            | 2              | 2                | F               | 52        | 13         | 26          | 0                   | 9                       | 1                              | 1              | N/A                | N/A                 | N/A                             | N/A                              |
| 24  | E24          | 1            | 2              | 1                | D               | 11        | 33         | 53          | 0                   | 4                       | 0                              | 0              | 27                 | 59                  | 33                              | 53                               |
| 25  | E25          | 1            | 2              | 1                | D               | 5         | 22         | 72          | 0                   | 2                       | 1                              | 1              | 20                 | 102                 | N/A                             | N/A                              |
| 26  | E26          | 1            | 2              | 2                | D               | 5         | 24         | 70          | 0                   | 2                       | 0                              | 0              | 51                 | 2                   | 43.6                            | 8.2                              |
| 27  | E27          | 1            | 2              | 2                | B               | 5         | 40         | 53          | 0                   | 2                       | 1                              | 1              | 53                 | 149                 | 71.8                            | 89.9                             |
| 28  | E28          | 1            | 2              | 2                | A               | 33        | 63         | 2           | 2                   | 0                       | 0                              | 0              | N/A                | N/A                 | N/A                             | N/A                              |
| 29  | E29          | 1            | 2              | 1                | A               | 3         | 30         | 65          | 0                   | 2                       | 0                              | 0              | 27                 | 76                  | 27.5                            | 33.5                             |
| 30  | E30          | 2            | 1              | 2                | A               | 11        | 29         | 59          | 0.1                 | 1                       | 1                              | 1              | 38                 | 62                  | 2.1                             | 33.6                             |
| 31  | E31          | 1            | 2              | 2                | A               | 9         | 37         | 36          | 1.2                 | 18                      | 4                              | 4              | 89                 | 174                 | 92.7                            | 39.4                             |
| 32  | E32          | 1            | 2              | 2                | C               | 19        | 37         | 44          | 0                   | 0                       | 0                              | 0              | 35                 | 51                  | 4                               | 23                               |
| 33  | E33          | 4            | 2              | 1                | A               | 10        | 19         | 71          | 0                   | 0                       | 0                              | 0              | 26                 | 142                 | 177.8                           | 41.9                             |
| 34  | E34          | 1            | 2              | 2                | A               | 5         | 10         | 67          | 15.9                | 2                       | 19                             | 19             | 22                 | 178                 | 74                              | 20.9                             |
| 35  | E35          | 1            | 2              | 3                | C               | 15        | 27         | 57          | 0                   | 1                       | 0                              | 0              | 30                 | 105                 | 2                               | 24                               |

| No. | Code Name | Pool Char | Pool Compos | Invest Object | Mkt Val Size | % Cash 1982 | % Bonds 1982 | % Stocks 1982 | % Real Estate 1982 | % Miscellaneous Assets 1982 | % Non-Control-able Assets 1982 | 6/30/82 # Bonds | 6/30/82 # Stocks | 1982 Bond Turn-Over % | 1982 Stock Turn-Over % |
|-----|-----------|-----------|-------------|---------------|--------------|-------------|--------------|---------------|--------------------|-----------------------------|--------------------------------|-----------------|------------------|-----------------------|------------------------|
| 36  | E36       | 4         | 1           | 1             | A            | 22          | 17           | 58            | 3                  | 0                           | 0                              | 6               | 104              | 64                    | 41                     |
| 37  | E37       | 1         | 2           | 2             | B            | 2           | 56           | 38            | 0                  | 4                           | 3                              | 75              | 136              | N/A                   | N/A                    |
| 38  | E38       | 1         | 2           | 1             | A            | 8           | 28           | 58            | 0                  | 6                           | 1                              | 46              | 73               | 180                   | 33                     |
| 39  | E39       | 1         | 2           | 1             | D            | 13          | 29           | 58            | 0                  | 0                           | 0                              | 28              | 81               | 0.6                   | 27                     |
| 40  | E40       | 1         | 2           | 1             | A            | 7           | 15           | 65            | 10                 | 3                           | 8                              | N/A             | N/A              | N/A                   | N/A                    |
| 41  | E41       | 4         | 3           | 3             | E            | 9           | 54           | 37            | 0                  | 0                           | 1                              | 42              | 78               | 45                    | 89                     |
| 42  | E42       | 1         | 2           | 2             | E            | 15          | 38           | 47            | 0                  | 0                           | 0                              | 47              | 64               | 5.4                   | 7.3                    |
| 43  | E43       | 1         | 2           | 2             | C            | 16          | 16           | 66            | 0                  | 1                           | 1                              | 13              | 48               | 8.7                   | 22.5                   |
| 44  | E44       | 1         | 3           | 2             | F            | 27          | 30           | 43            | 0                  | 0                           | 0                              | 9               | 31               | 26                    | 0                      |
| 45  | E45       | 1         | 2           | 1             | A            | 4           | 38           | 50            | 0                  | 9                           | 1                              | 71              | 39               | 79.5                  | 39                     |
| 46  | E46       | 1         | 2           | 2             | A            | 9           | 14           | 77            | 0                  | 0                           | 1                              | 46              | 120              | 18.2                  | 15.1                   |
| 47  | E47       | 1         | 2           | 1             | B            | 9           | 33           | 57            | 0.3                | 1                           | 1                              | 28              | 72               | 200                   | 62.7                   |
| 48  | E48       | 1         | 2           | 1             | E            | 22          | 0            | 46            | 0                  | 32                          | 37                             | N/A             | 35               | N/A                   | 12                     |
| 49  | E49       | 1         | 2           | 1             | C            | 15          | 37           | 48            | 0                  | 0                           | 2                              | 29              | 81               | N/A                   | N/A                    |
| 50  | E50       | 1         | 2           | 1             | C            | 70          | 10           | 20            | 0                  | 0                           | 1                              | 7               | 7                | 30                    | 53.3                   |
| 51  | E51       | 1         | 2           | 1             | C            | 24          | 43           | 28            | 5.3                | 0                           | 5                              | 10              | 26               | 10.6                  | 45.8                   |
| 52  | E52       | 1         | 2           | 1             | D            | 9           | 15           | 71            | 1.2                | 4                           | 11                             | 13              | 83               | 1.6                   | 55                     |
| 53  | E53       | 1         | 2           | 2             | B            | 12          | 21           | 64            | 0                  | 3                           | 2                              | 15              | 96               | N/A                   | N/A                    |
| 54  | E54       | 1         | 2           | 1             | C            | 10          | 16           | 68            | 0                  | 6                           | 0                              | 18              | 130              | 153                   | 45                     |
| 55  | E55       | 1         | 2           | 1             | C            | 14          | 29           | 57            | 0                  | 0                           | 12                             | 30              | 84               | 111                   | 39                     |
| 56  | E56       | 1         | 2           | 1             | B            | 29          | 19           | 51            | 0.9                | 0                           | 0                              | 41              | 88               | 94.6                  | 44.3                   |
| 57  | E57       | 1         | 1           | 2             | A            | 9           | 38           | 48            | 0.9                | 4                           | 1                              | 216             | 230              | 354                   | 39                     |
| 58  | E58       | 1         | 2           | 2             | D            | 26          | 23           | 35            | 0.4                | 15                          | 12                             | 39              | 53               | 56                    | 1                      |
| 59  | E59       | 1         | 2           | 2             | D            | 41          | 21           | 37            | 0                  | 1                           | 1                              | 9               | 25               | 43                    | 33                     |
| 60  | E60       | 1         | 2           | 2             | D            | 9           | 37           | 37            | 2                  | 15                          | 19                             | 35              | 28               | 20                    | 35                     |
| 61  | E61       | 1         | 1           | 1             | D            | 2           | 31           | 67            | 0                  | 0                           | 0                              | 27              | 36               | 71                    | 31                     |
| 62  | E62       | 1         | 2           | 2             | E            | 7           | 24           | 69            | 0                  | 0                           | 0                              | 21              | 34               | 16                    | 39.2                   |
| 63  | E63       | 1         | 2           | 1             | A            | 18          | 35           | 47            | 0                  | 0                           | 2                              | 23              | 146              | N/A                   | 49                     |
| 64  | E64       | 1         | 2           | 1             | E            | 17          | 30           | 53            | 0                  | 0                           | 1                              | 11              | 49               | 38                    | 68                     |
| 65  | E65       | 1         | 2           | 1             | C            | 14          | 33           | 50            | 0                  | 4                           | 4                              | 41              | 82               | 33.2                  | 45.5                   |
| 66  | E66       | 1         | 1           | 1             | C            | 8           | 44           | 48            | 0                  | 0                           | 6                              | 33              | 60               | 39.4                  | 118.6                  |
| 67  | E67       | 1         | 1           | 1             | C            | 27          | 19           | 54            | 0                  | 0                           | 0                              | N/A             | N/A              | N/A                   | N/A                    |
| 68  | E68       | 3         | 1           | 2             | C            | 6           | 31           | 63            | 0                  | 0                           | 2                              | 38              | 94               | 53                    | 44                     |
| 69  | E69       | 1         | 2           | 1             | B            | 13          | 20           | 65            | 0                  | 1                           | 2                              | 27              | 137              | 64.5                  | 77.7                   |
| 70  | E70       | 1         | 1           | 2             | D            | 5           | 31           | 62            | 0                  | 2                           | 0                              | N/A             | 73               | 0                     | 71                     |



| No. | Code Name | Pool Char | Pool Compos | Invest Object | Mkt Val Size | % Cash 1982 | % Bonds 1982 | % Stocks 1982 | % Real Estate 1982 | % Miscellaneous Assets 1982 | % Non-Control-lable Assets 1982 | 6/30/82 # Bonds | 6/30/82 # Stocks | 1982 Bond Turn-Over % | 1982 Stock Turn-Over % |
|-----|-----------|-----------|-------------|---------------|--------------|-------------|--------------|---------------|--------------------|-----------------------------|---------------------------------|-----------------|------------------|-----------------------|------------------------|
| 71  | E71       | 3         | 2           | 1             | C            | 10          | 38           | 52            | 0                  | 0                           | 0                               | 0               | 0                | N/A                   | N/A                    |
| 72  | E72       | 1         | 2           | 2             | B            | 14          | 25           | 55            | 0.6                | 6                           | 7                               | N/A             | 103              | N/A                   | N/A                    |
| 73  | E73       | 1         | 2           | 2             | A            | 13          | 42           | 42            | 0.5                | 3                           | 1                               | 28              | 161              | 123.8                 | 16.1                   |
| 74  | E74       | 1         | 2           | 1             | D            | 9           | 32           | 56            | 1                  | 1                           | 1                               | 44              | 62               | 1                     | 8                      |
| 75  | E75       | 1         | 1           | 1             | C            | 3           | 26           | 71            | 0                  | 0                           | 0                               | 63              | 63               | 0.1                   | 9.2                    |
| 76  | E76       | 1         | 3           | 2             | F            | 17          | 27           | 56            | 0                  | 0                           | 0                               | 17              | 47               | 169                   | 27.8                   |
| 77  | E77       | 5         | 2           | 2             | F            | 4           | 42           | 54            | 0                  | 0                           | 0                               | 17              | 50               | 170.2                 | 16.3                   |
| 78  | E78       | 2         | 2           | 2             | D            | 27          | 38           | 35            | 0                  | 0                           | 0                               | 30              | 66               | 25.2                  | 15.5                   |
| 79  | E79       | 2         | 2           | 2             | D            | 27          | 33           | 40            | 0                  | 0                           | 0                               | 28              | 25               | 0                     | 0                      |
| 80  | E80       | 3         | 2           | 2             | C            | 28          | 49           | 21            | 0.8                | 2                           | 1                               | 56              | 29               | 10                    | 30                     |
| 81  | E81       | 1         | 2           | 1             | D            | 19          | 17           | 41            | 11.6               | 11                          | 3                               | 39              | N/A              | N/A                   | 87.3                   |
| 82  | E82       | 1         | 2           | 2             | F            | 0           | 61           | 39            | 0                  | 0                           | 1                               | N/A             | N/A              | N/A                   | N/A                    |
| 83  | E83       | 1         | 2           | 2             | F            | 0           | 41           | 59            | 0                  | 0                           | 1                               | N/A             | N/A              | N/A                   | N/A                    |
| 84  | E84       | 1         | 2           | 2             | F            | 22          | 44           | 35            | 0                  | 0                           | 0                               | 14              | 36               | 356                   | 81.6                   |
| 85  | E85       | 1         | 2           | 2             | C            | 8           | 41           | 40            | 9.8                | 1                           | 10                              | 47              | 57               | 52.9                  | 51.4                   |
| 86  | E86       | 3         | 2           | 2             | D            | 35          | 13           | 53            | 0                  | 0                           | 0                               | 25              | 93               | 0                     | 44                     |
| 87  | E87       | 5         | 2           | 3             | F            | 63          | 37           | 0             | 0                  | 0                           | 0                               | N/A             | N/A              | N/A                   | N/A                    |
| 88  | E88       | 5         | 2           | 3             | F            | 26          | 74           | 0             | 0                  | 0                           | 0                               | N/A             | N/A              | N/A                   | N/A                    |
| 89  | E89       | 1         | 1           | 2             | B            | 5           | 11           | 36            | 17.1               | 31                          | 1                               | 38              | 134              | 24.3                  | 28.5                   |
| 90  | E90       | 1         | 1           | 2             | A            | 18          | 35           | 46            | 0                  | 1                           | 1                               | 41              | 42               | N/A                   | N/A                    |
| 91  | E91       | 2         | 3           | 2             | F            | 17          | 35           | 48            | 0                  | 0                           | 1                               | 28              | 28               | 16.8                  | 11.7                   |
| 92  | E92       | 5         | 2           | 2             | F            | 0           | 43           | 57            | 0                  | 0                           | 0                               | 20              | 28               | 42                    | 28                     |
| 93  | E93       | 1         | 4           | 2             | B            | 21          | 13           | 42            | 9.5                | 14                          | 1                               | 17              | 47               | 68.8                  | 10.9                   |
| 94  | E94       | 3         | 2           | 1             | D            | 13          | 17           | 70            | 0                  | 0                           | 1                               | 9               | 51               | 0                     | 13.3                   |
| 95  | E95       | 2         | 2           | 2             | C            | 6           | 17           | 46            | 3.2                | 28                          | 1                               | 26              | 46               | N/A                   | N/A                    |
| 96  | E96       | 1         | 2           | 2             | B            | 20          | 40           | 38            | 0                  | 3                           | 5                               | 62              | 69               | 6.5                   | 9.6                    |
| 97  | E97       | 3         | 3           | 3             | F            | 3           | 36           | 61            | 0                  | 0                           | 0                               | 51              | 70               | 18                    | 31                     |
| 98  | E98       | 1         | 2           | 1             | F            | 19          | 25           | 56            | 0                  | 0                           | 0                               | 18              | 36               | 0                     | 8.6                    |
| 99  | E99       | 1         | 2           | 1             | D            | 16          | 36           | 46            | 0                  | 2                           | 2                               | 35              | 56               | 48                    | 74                     |
| 100 | F100      | 1         | 2           | 2             | B            | 21          | 22           | 57            | 0                  | 0                           | 0                               | 75              | 92               | 34.9                  | 9.5                    |
| 101 | E101      | 1         | 2           | 2             | D            | 5           | 23           | 72            | 0                  | 0                           | 0                               | 56              | 64               | 18.9                  | 7.6                    |
| 102 | E102      | 1         | 3           | 2             | D            | 4           | 28           | 68            | 0                  | 0                           | 0                               | N/A             | N/A              | N/A                   | N/A                    |
| 103 | E103      | 1         | 2           | 2             | E            | 12          | 33           | 56            | 0                  | 0                           | 0                               | 28              | 61               | 13.7                  | 22.2                   |
| 104 | E104      | 1         | 2           | 2             | F            | 14          | 32           | 54            | 0                  | 0                           | 0                               | 21              | 61               | 4.7                   | 21.8                   |
| 105 | E105      | 2         | 2           | 1             | F            | 18          | 21           | 61            | 0                  | 0                           | 0                               | N/A             | N/A              | N/A                   | N/A                    |



| No. | Code Name | Pool Char | Pool Compos | Invest Object | Mkt Val Size | % Cash 1982 | % Bonds 1982 | % Stocks 1982 | % Real Estate 1982 | % Miscel-laneous Assets 1982 | % Non-Control-lable Assets 1982 | 6/30/82 # Bonds | 6/30/82 # Stocks | 1982 Bond Turn-Over % | 1982 Stock Turn-Over % |
|-----|-----------|-----------|-------------|---------------|--------------|-------------|--------------|---------------|--------------------|------------------------------|---------------------------------|-----------------|------------------|-----------------------|------------------------|
| 106 | E106      | 1         | 2           | 2             | E            | 15          | 38           | 23            | 23.1               | 1                            | 26                              | 18              | 35               | 36                    | 43.1                   |
| 107 | E107      | 1         | 2           | 2             | F            | 0           | 38           | 62            | 0                  | 0                            | 0                               | 25              | 37               | 0                     | 12.5                   |
| 108 | E108      | 1         | 2           | 2             | C            | 13          | 31           | 56            | 0                  | 0                            | 1                               | 32              | 76               | 100                   | 24                     |
| 109 | E109      | 1         | 2           | 1             | F            | 28          | 47           | 24            | 0                  | 0                            | 0                               | 18              | 29               | 17.1                  | 58.3                   |
| 110 | E110      | 3         | 1           | 2             | A            | 22          | 26           | 29            | 23                 | 0                            | 1                               | 35              | 126              | 75                    | 112                    |
| 111 | E111      | 3         | 2           | 2             | E            | 15          | 36           | 25            | 21.6               | 2                            | 25                              | 22              | 61               | 36.2                  | 52.7                   |
| 112 | E112      | 1         | 3           | 2             | C            | 6           | 29           | 65            | 0                  | 0                            | 0                               | 14              | 29               | 3.6                   | 3.5                    |
| 113 | E113      | 1         | 2           | 2             | F            | 0           | 35           | 65            | 0                  | 0                            | 22                              | 6               | 21               | 1                     | 20                     |
| 114 | E114      | 1         | 2           | 2             | E            | 22          | 49           | 28            | 1                  | 0                            | 0                               | 28              | 27               | N/A                   | N/A                    |
| 115 | E115      | 1         | 2           | 2             | E            | 10          | 37           | 53            | 0                  | 0                            | 0                               | 15              | 15               | N/A                   | N/A                    |
| 116 | C1        | 1         | 3           | 2             | D            | 6           | 31           | 63            | 0                  | 1                            | 0                               | 24              | 31               | 5.6                   | 9                      |
| 117 | C2        | 1         | 1           | 1             | B            | 15          | 37           | 47            | 0.9                | 0                            | 33                              | 38              | 61               | 2                     | 92                     |
| 118 | C3        | 1         | 3           | 1             | B            | 16          | 20           | 54            | 0                  | 11                           | 15                              | 64              | 59               | 5.9                   | 2.9                    |
| 119 | C4        | 1         | 2           | 2             | C            | 1           | 26           | 74            | 0                  | 0                            | 0                               | 66              | 71               | 0.2                   | 4.4                    |
| 120 | C5        | 1         | 2           | 2             | D            | 4           | 26           | 26            | 0                  | 0                            | 0                               | 25              | 45               | N/A                   | N/A                    |
| 121 | C6        | 1         | 2           | 2             | D            | 12          | 75           | 1             | 43.7               | 11                           | 8                               | 45              | 19               | 132.6                 | 206.1                  |
| 122 | C7        | 3         | 1           | 1             | A            | 88          | 7            | 5             | 1.1                | 0                            | 0                               | 14              | 24               | 452                   | 136                    |
| 123 | C8        | 1         | 2           | 1             | B            | 3           | 32           | 54            | 8                  | 3                            | 13                              | 44              | 163              | N/A                   | N/A                    |
| 124 | C9        | 1         | 2           | 2             | A            | 11          | 34           | 51            | 2.5                | 1                            | 0                               | 112             | 375              | N/A                   | N/A                    |
| 125 | C10       | 1         | 1           | 1             | F            | 12          | 34           | 55            | 0                  | 0                            | 0                               | 11              | 42               | 0                     | 18.2                   |
| 126 | C11       | 2         | 2           | 1             | C            | 16          | 13           | 71            | 0                  | 0                            | 0                               | 3               | 16               | 2.3                   | 19.6                   |
| 127 | C12       | 1         | 2           | 2             | F            | 5           | 0            | 94            | 0                  | 0                            | 0                               | N/A             | 5                | 25.1                  | 11.5                   |
| 128 | C13       | 2         | 3           | 2             | D            | 6           | 33           | 61            | 0                  | 0                            | 0                               | 71              | 30               | 28                    | 53                     |
| 129 | C14       | 1         | 2           | 2             | C            | 53          | 0            | 48            | 0                  | 0                            | 0                               | 0               | 41               | 0                     | 121                    |
| 130 | C15       | 1         | 2           | 1             | C            | 20          | 20           | 52            | 8.5                | 0                            | 0                               | 66              | 0                | 21.3                  | 4.6                    |
| 131 | C16       | 4         | 4           | 1             | A            | 13          | 20           | 56            | 0                  | 11                           | 13                              | 42              | 54               | 9.6                   | 2                      |
| 132 | C17       | 3         | 2           | 1             | C            | 7           | 24           | 67            | 0.9                | 1                            | 46                              | 58              | 97               | 37                    | 22.9                   |
| 133 | C18       | 1         | 1           | 1             | D            | 36          | 20           | 39            | 0                  | 5                            | 0                               | 13              | 50               | 10                    | 29                     |
| 134 | C19       | 1         | 3           | 2             | D            | 6           | 43           | 51            | 0                  | 0                            | 0                               | 60              | 32               | 1                     | 45                     |
| 135 | C20       | 1         | 1           | 1             | B            | 17          | 22           | 54            | 1.1                | 5                            | 0                               | 93              | 123              | 20.6                  | 23.1                   |
| 136 | C21       | 1         | 2           | 1             | C            | 26          | 35           | 39            | 0.5                | 0                            | 1                               | 39              | 37               | 50.1                  | 98.7                   |
| 137 | C22       | 1         | 1           | 2             | A            | 27          | 23           | 32            | 1.5                | 15                           | 14                              | 75              | 138              | 31.5                  | 27.1                   |
| 138 | C23       | 1         | 2           | 3             | E            | 12          | 22           | 61            | 1.1                | 5                            | 4                               | 25              | 46               | 0                     | 16.5                   |
| 139 | C24       | 1         | 2           | 1             | D            | 7           | 19           | 74            | 0                  | 0                            | 0                               | 11              | 39               | 19.5                  | 62.3                   |
| 140 | C25       | 4         | 2           | 2             | A            | 40          | 58           | 3             | 0                  | 0                            | 0                               | 11              | 165              | 315                   | 23.5                   |

| No. | Code Name | Pool Char | Pool Compos | Invest Object | Mkt Val Size | % Cash 1982 | % Bonds 1982 | % Stocks 1982 | % Real Estate 1982 | % Miscel- Assets 1982 | % Non- Control- lable Assets 1982 | 6/30/82 # Bonds | 6/30/82 # Stocks | 1982 Bond Turn- Over % | 1982 Stock Turn- Over % |
|-----|-----------|-----------|-------------|---------------|--------------|-------------|--------------|---------------|--------------------|-----------------------|-----------------------------------|-----------------|------------------|------------------------|-------------------------|
| 141 | C26       | 1         | 3           | 1             | E            | 17          | 39           | 41            | 2.8                | 0                     | 3                                 | 23              | 25               | 63.5                   | 48.9                    |
| 142 | C27       | 1         | 2           | 1             | E            | 9           | 20           | 71            | 0                  | 0                     | 0                                 | 19              | 34               | 8.6                    | 75.7                    |
| 143 | C28       | 1         | 1           | 1             | E            | 1           | 11           | 70            | 5.6                | 13                    | 13                                | 5               | 10               | N/A                    | N/A                     |
| 144 | C29       | 1         | 2           | 2             | C            | 12          | 31           | 53            | 3.6                | 0                     | 7                                 | 68              | 160              | 90                     | 80                      |
| 145 | C30       | 1         | 3           | 2             | A            | 26          | 25           | 49            | 0                  | 0                     | 0                                 | 15              | 26               | 32                     | 82                      |
| 146 | C31       | 1         | 2           | 2             | E            | 11          | 17           | 57            | 0.4                | 14                    | 0                                 | 40              | 47               | 14.1                   | 18.2                    |
| 147 | C32       | 1         | 2           | 2             | B            | 2           | 44           | 12            | 28                 | 14                    | 1                                 | 25              | 25               | 0                      | 39                      |
| 148 | C33       | 5         | 2           | 3             | E            | 19          | 37           | 44            | 0                  | 0                     | 0                                 | 35              | 38               | 2.4                    | 4.4                     |
| 149 | C34       | 1         | 2           | 1             | F            | 8           | 25           | 53            | 14                 | 0                     | 14                                | 2               | 6                | N/A                    | N/A                     |
| 150 | C35       | 1         | 2           | 1             | C            | 18          | 1            | 43            | 5.5                | 33                    | 2                                 | 3               | 35               | 2.3                    | 42.1                    |
| 151 | C36       | 1         | 2           | 1             | C            | 15          | 47           | 38            | 0                  | 0                     | 0                                 | 27              | 18               | N/A                    | N/A                     |
| 152 | C37       | 1         | 2           | 2             | E            | 19          | 60           | 21            | 0                  | 0                     | 0                                 | 20              | 14               | N/A                    | N/A                     |
| 153 | C38       | 4         | 1           | 2             | F            | 19          | 23           | 30            | 13                 | 15                    | 0                                 | 94              | 62               | 0                      | 7                       |
| 154 | C39       | 3         | 2           | 2             | C            | 23          | 38           | 37            | 0                  | 1                     | 0                                 | 28              | 40               | 187.5                  | 98.3                    |
| 155 | C40       | 4         | 2           | 2             | D            | 33          | 39           | 28            | 0                  | 0                     | 0                                 | 0               | 0                | 13.3                   | 26.8                    |
| 156 | C41       | 1         | 3           | 2             | E            | 8           | 23           | 64            | 2.8                | 3                     | 5                                 | 45              | 54               | 0                      | 11.4 <sup>80</sup>      |
| 157 | C42       | 1         | 2           | 2             | D            | 27          | 7            | 64            | 1.2                | 0                     | 0                                 | N/A             | N/A              | 188                    | 99                      |
| 158 | C43       | 4         | 1           | 1             | B            | 34          | 0            | 66            | 0                  | 0                     | 0                                 | 0               | 15               | 0                      | 67.6                    |
| 159 | C44       | 1         | 2           | 1             | F            | 3           | 46           | 51            | 0                  | 0                     | 0                                 | 1               | 2                | 12.2                   | 18.9                    |
| 160 | C45       | 1         | 2           | 1             | F            | 5           | 41           | 54            | 0                  | 0                     | 0                                 | 58              | 59               | 47                     | 12                      |
| 161 | C46       | 4         | 2           | 1             | D            | 48          | 18           | 23            | 1                  | 10                    | 17                                | 32              | 33               | 26.6                   | 37.6                    |
| 162 | C47       | 1         | 2           | 2             | D            | 5           | 55           | 40            | 0                  | 0                     | 0                                 | 64              | 32               | 0                      | 36                      |
| 163 | C48       | 1         | 2           | 2             | D            | 4           | 24           | 57            | 9                  | 6                     | 1                                 | 20              | 47               | 0                      | 16                      |
| 164 | C49       | 1         | 2           | 1             | B            | 0           | 49           | 50            | 0.2                | 0                     | 1                                 | N/A             | N/A              | N/A                    | N/A                     |
| 165 | C50       | 1         | 2           | 1             | D            | 32          | 25           | 43            | 0                  | 0                     | 0                                 | 10              | 25               | 27.4                   | 106.1                   |
| 166 | C51       | 1         | 2           | 1             | F            | 27          | 14           | 58            | 0                  | 0                     | 0                                 | 2               | 17               | 0                      | 20.1                    |
| 167 | C52       | 1         | 2           | 2             | F            | 1           | 48           | 51            | 0                  | 0                     | 1                                 | 17              | 47               | 68.6                   | 47.1                    |
| 168 | C53       | 1         | 2           | 2             | F            | 19          | 40           | 41            | 0                  | 0                     | 1                                 | 19              | 31               | 1.5                    | 17.1                    |
| 169 | C54       | 1         | 2           | 2             | F            | 13          | 37           | 33            | 7.4                | 9                     | 21                                | 81              | 88               | 198                    | 26                      |
| 170 | C55       | 1         | 3           | 2             | A            | 8           | 15           | 76            | 1                  | 0                     | 0                                 | 85              | 128              | 0                      | 3.2                     |
| 171 | C56       | 1         | 3           | 2             | A            | 3           | 28           | 60            | 4.6                | 4                     | 0                                 | 57              | 85               | N/A                    | N/A                     |
| 172 | C57       | 1         | 3           | 2             | A            | 45          | 13           | 40            | 0                  | 2                     | 2                                 | 4               | 47               | 25                     | 90                      |
| 173 | C58       | 3         | 1           | 1             | C            | 8           | 0            | 81            | 1.4                | 11                    | 12                                | N/A             | N/A              | N/A                    | N/A                     |
| 174 | C59       | 1         | 2           | 1             | D            | 19          | 65           | 16            | 0                  | 0                     | 0                                 | 252             | 34               | 0.4                    | 0                       |
| 175 | C60       | 1         | 3           | 2             | B            | 14          | 20           | 56            | 10.1               | 0                     | 2                                 | 43              | 80               | 29.1                   | 34.1                    |

| No. | Code Name | Pool Char | Pool Compos | Invest Object | Mkt Val Size | % Cash 1982 | % Bonds 1982 | % Stocks 1982 | % Real Estate 1982 | % Miscellaneous Assets 1982 | % Non-Controlable Assets 1982 | 6/30/82 # Bonds | 6/30/82 # Stocks | 1982 Bond Turn-Over % | 1982 Stock Turn-Over % |
|-----|-----------|-----------|-------------|---------------|--------------|-------------|--------------|---------------|--------------------|-----------------------------|-------------------------------|-----------------|------------------|-----------------------|------------------------|
| 176 | C61       | 1         | 3           | 2             | A            | 5           | 60           | 34            | 0                  | 0                           | 0                             | 776             | 125              | 0.7                   | 0                      |
| 177 | C62       | 2         | 3           | 2             | D            | 5           | 24           | 71            | 0                  | 0                           | 0                             | 39              | 16               | 2.9                   | 4.4                    |
| 178 | C63       | 1         | 2           | 1             | C            | 1           | 25           | 72            | 1                  | 0                           | 0                             | 26              | 60               | 16.3                  | 17.3                   |
| 179 | C64       | 1         | 2           | 3             | E            | 0           | 93           | 7             | 0                  | 0                           | 0                             | 16              | 5                | 63.8                  | 0                      |
| 180 | C65       | 1         | 3           | 2             | C            | 23          | 21           | 55            | 0                  | 0                           | 0                             | 72              | 45               | 8.6                   | 31.3                   |
| 181 | C66       | 1         | 2           | 1             | D            | 7           | 41           | 44            | 0                  | 8                           | 2                             | 17              | 49               | 151                   | 72                     |
| 182 | C67       | 1         | 2           | 3             | E            | 13          | 59           | 27            | 0                  | 0                           | 0                             | 41              | 48               | 16.5                  | 44.8                   |
| 183 | C68       | 1         | 2           | 2             | A            | 5           | 29           | 58            | 8.6                | 0                           | 1                             | N/A             | N/A              | N/A                   | N/A                    |
| 184 | C69       | 1         | 1           | 3             | D            | 56          | 44           | 0             | 0                  | 0                           | 1                             | 11              | 0                | 0                     | N/A                    |
| 185 | C70       | 1         | 2           | 3             | D            | 24          | 11           | 49            | 2                  | 14                          | 1                             | 4               | 44               | N/A                   | 15                     |
| 186 | C71       | 1         | 2           | 2             | D            | 0           | 27           | 25            | 40.7               | 7                           | 8                             | 39              | 42               | 3.9                   | 13                     |
| 187 | C72       | 1         | 3           | 1             | A            | 2           | 38           | 50            | 9.4                | 0                           | 0                             | 57              | 59               | N/A                   | N/A                    |
| 188 | C73       | 1         | 3           | 2             | F            | 6           | 46           | 48            | 0                  | 0                           | 1                             | 21              | 28               | 0                     | 53.6                   |
| 189 | C74       | 1         | 2           | 2             | D            | 17          | 6            | 11            | 51.3               | 16                          | 11                            | 32              | 83               | 0                     | 30.6                   |
| 190 | C75       | 1         | 3           | 1             | E            | 24          | 29           | 47            | 0                  | 0                           | 0                             | 26              | 49               | 2.4                   | 24.3                   |
| 191 | C76       | 1         | 2           | 1             | D            | 16          | 42           | 41            | 0                  | 0                           | 0                             | 17              | 35               | 31.8                  | 100.5                  |
| 192 | C77       | 1         | 2           | 1             | A            | 4           | 11           | 86            | 0                  | 0                           | 0                             | 46              | 127              | 4.1                   | 4.1                    |
| 193 | C78       | 1         | 2           | 1             | D            | 14          | 38           | 38            | 0                  | 11                          | 11                            | 19              | 42               | 19.9                  | 26.6                   |
| 194 | C79       | 1         | 2           | 2             | D            | 0           | 44           | 56            | 0                  | 0                           | 0                             | 39              | 42               | 19.6                  | 8.3                    |
| 195 | C80       | 1         | 2           | 1             | F            | 3           | 39           | 55            | 2.7                | 0                           | 0                             | N/A             | N/A              | N/A                   | N/A                    |
| 196 | C81       | 1         | 2           | 1             | C            | 3           | 13           | 67            | 14                 | 3                           | 1                             | 27              | 35               | 0                     | 0.3                    |
| 197 | C82       | 1         | 2           | 2             | B            | 14          | 18           | 68            | 0                  | 0                           | 1                             | N/A             | N/A              | 31                    | 36                     |
| 198 | C83       | 1         | 2           | 1             | D            | 46          | 26           | 28            | 0                  | 0                           | 0                             | 1               | 49               | N/A                   | 9.4                    |
| 199 | C84       | 1         | 2           | 1             | C            | 17          | 56           | 27            | 0                  | 0                           | 0                             | 81              | 69               | 12.8                  | 11.3                   |
| 200 | C85       | 1         | 2           | 2             | D            | 17          | 43           | 40            | 0                  | 0                           | 0                             | 29              | 16               | 6.1                   | 54.3                   |
| 201 | C86       | 1         | 3           | 2             | D            | 13          | 53           | 34            | 0                  | 0                           | 0                             | 59              | 10               | 4.8                   | 4.8                    |
| 202 | C87       | 1         | 2           | 2             | D            | 18          | 41           | 41            | 0                  | 0                           | 1                             | 9               | 28               | 116                   | 30                     |
| 203 | C88       | 1         | 2           | 1             | D            | 24          | 29           | 28            | 0.2                | 19                          | 25                            | 32              | 31               | 0                     | 9.7                    |
| 204 | C89       | 3         | 2           | 2             | D            | 43          | 31           | 15            | 11                 | 0                           | 11                            | 58              | 49               | 32                    | 85                     |
| 205 | C90       | 1         | 2           | 2             | C            | 39          | 39           | 23            | 0                  | 0                           | 0                             | N/A             | N/A              | N/A                   | N/A                    |
| 206 | C91       | 1         | 2           | 2             | F            | 15          | 37           | 46            | 0                  | 2                           | 1                             | 14              | 26               | 0                     | 53.9                   |
| 207 | C92       | 2         | 2           | 2             | E            | 27          | 43           | 22            | 6.7                | 1                           | 10                            | 30              | 24               | 3.1                   | 4.6                    |
| 208 | C93       | 1         | 2           | 1             | C            | 10          | 9            | 71            | 2.9                | 7                           | 1                             | 3               | 70               | 0                     | 25.2                   |
| 209 | C94       | 1         | 2           | 2             | D            | 5           | 3            | 15            | 46                 | 31                          | 13                            | 13              | 55               | 1                     | 24                     |
| 210 | C95       | 4         | 2           | 2             | E            | 25          | 34           | 41            | 0                  | 0                           | 1                             | 31              | 31               | 0                     | 9.7                    |

| No.                    | Code<br>Name | Pool<br>Char | Pool<br>Compos | Invest<br>Object | Mkt Val<br>Size | %<br>Cash<br>1982 | %<br>Bonds<br>1982 | %<br>Stocks<br>1982 | %<br>Real<br>Estate<br>1982 | %<br>Miscel-<br>laneous<br>Assets<br>1982 | % Non-<br>Control-<br>lable<br>Assets<br>1982 | 6/30/82<br># Bonds | 6/30/82<br># Stocks | 1982<br>Bond<br>Turn-<br>Over % | 1982<br>Stock<br>Turn-<br>Over % |
|------------------------|--------------|--------------|----------------|------------------|-----------------|-------------------|--------------------|---------------------|-----------------------------|-------------------------------------------|-----------------------------------------------|--------------------|---------------------|---------------------------------|----------------------------------|
| 211                    | C96          | 2            | 2              | 1                | A               | 18                | 39                 | 40                  | 2.5                         | 1                                         | 5                                             | 68                 | 53                  | 51.1                            | 67.2                             |
| 212                    | C97          | 1            | 2              | 1                | E               | 16                | 44                 | 40                  | 0                           | 0                                         | 0                                             | 46                 | 67                  | 37.5                            | 21.3                             |
| 213                    | C98          | 1            | 3              | 1                | D               | 5                 | 19                 | 72                  | 2.8                         | 1                                         | 5                                             | 11                 | 25                  | 73.7                            | 66.7                             |
| 214                    | C99          | 2            | 4              | 1                | R               | 4                 | 49                 | 47                  | 0                           | 0                                         | 0                                             | 25                 | 24                  | 4.7                             | 82.5                             |
| 215                    | C100         | 3            | 2              | 2                | D               | 58                | 19                 | 22                  | 0                           | 0                                         | 0                                             | 19                 | 16                  | 37                              | 85                               |
| 216                    | C101         | 3            | 1              | 2                | D               | 9                 | 28                 | 43                  | 18.7                        | 2                                         | 0                                             | 85                 | 80                  | 2.8                             | 12.1                             |
| 217                    | C102         | 1            | 1              | 1                | D               | 0                 | 28                 | 65                  | 0                           | 7                                         | 6                                             | 39                 | 122                 | 149.8                           | 51.9                             |
| 218                    | C103         | 2            | 2              | 2                | D               | 6                 | 44                 | 45                  | 0                           | 5                                         | 6                                             | 39                 | 122                 | 149.8                           | 51.9                             |
| # Answering<br>Average |              | 218          | 218            | 218              | 218             | 218<br>15.4%      | 218<br>30.6%       | 218<br>48.1%        | 218<br>2.7%                 | 218<br>3.2%                               | 218<br>2.9%                                   | 193                | 197                 | 171                             | 176                              |
|                        |              |              |                |                  |                 |                   |                    |                     |                             |                                           |                                               | 28                 | 49                  | 19.6%                           | 28.0%                            |

## EXHIBIT III

DETAILED PERFORMANCE SUMMARYAVERAGE ANNUAL TOTAL RETURN

This exhibit shows in detail the average annual total return performance of all investment pools and various bond and equity indexes for the one-, three-, five-, and ten-year periods ending June 30, 1982. For example, investment pool C69 for the one-year period had a return of 15.69%, which was the highest return among all pools and indices in the 1982 Comparative Performance Study. This pool had an average annual return of 9.29% for the three-year period and ranked sixty-ninth, and 7.66% for the five-year period and ranked ninety-second, etc. Performance of pools is also ranked based on investment objective, investment size, and percentage in equity categories. Lastly, beta and efficiency measure ranking is shown for those pools with at least five years' data. The table below shows the number of pools participating based on the various groupings.

Number of Pools Participating

| <u>Grouping - Ending June 30, 1982</u>   | <u>1 Years</u> | <u>3 Years</u> | <u>5 Years</u> | <u>10 Years</u> |
|------------------------------------------|----------------|----------------|----------------|-----------------|
| Page 84 - All Pools                      | 218            | 210            | 195            | 150             |
| Page 90 - Total Return                   | 88             | 87             | 79             | 63              |
| Page 93 - Balanced or Income<br>Oriented | 130            | 123            | 116            | 87              |
| Page 97 - Over \$50 Million              | 61             | 61             | 57             | 46              |
| Page 99 - \$10-\$50 Million              | 100            | 97             | 89             | 69              |
| Page 102 - Under \$10 Million            | 57             | 52             | 49             | 35              |
| Page 104 - 65% Equity or More            | 52             | 49             | 45             | 35              |
| Page 106 - 50% to 65% Equity             | 89             | 88             | 80             | 63              |
| Page 108 - Under 50% Equity              | 77             | 73             | 70             | 52              |
| Page 110 - Beta and Efficiency           | N/A            | N/A            | 176            | 127             |

1982 NACUBO COMPARATIVE PERFORMANCE STUDY  
ALL ENDOWMENT POOLS  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE NAME | EQ % | SIZE | 1 YEAR RETURN | #   | 3 YEAR RETURN | #   | 5 YEAR RETURN | #   | 10 YEAR RETURN |
|----|-----------|------|------|---------------|-----|---------------|-----|---------------|-----|----------------|
| 1  | C69       | 0    | D    | 15.69%        | 69  | 9.29%         | 92  | 7.66%         |     | N/A%           |
| 2  | C59       | 29   | B    | 15.22         | 75  | 9.17          |     | N/A           |     | N/A            |
| 3  | E7        | 48   | F    | 14.64         | 42  | 10.83         | 67  | 8.44          | 143 | 2.31           |
| 4  | C6        | 14   | D    | 13.16         | 36  | 11.06         | 57  | 8.69          | 64  | 5.16           |
| 5  | C7        | 8    | A    | 12.90         | 23  | 11.85         | 51  | 9.10          | 122 | 3.61           |
| 6  | C11       | 72   | C    | 12.86         | 2   | 17.72         |     | N/A           |     | N/A            |
| 7  | C60       | 57   | B    | 12.38         | 33  | 11.15         | 29  | 10.47         | 19  | 7.50           |
| 8  | C85       | 31   | D    | 11.99         | 89  | 8.60          | 65  | 8.47          | 43  | 5.72           |
|    | COM-FDBD  | 0    | A    | 10.98         |     | 0.10          |     | 2.30          |     | N/A            |
| 9  | C30       | 43   | E    | 10.70         | 38  | 10.96         | 62  | 8.49          | 47  | 5.60           |
| 10 | C74       | 12   | D    | 10.38         | 57  | 10.06         | 20  | 11.18         | 8   | 9.27           |
| 11 | E87       | 5    | F    | 9.79          | 205 | 2.59          | 192 | 2.74          | 103 | 4.12           |
| 12 | C81       | 72   | C    | 9.75          | 28  | 11.64         |     | N/A           |     | N/A            |
| 13 | E58       | 43   | D    | 9.60          | 140 | 7.09          | 145 | 6.03          | 33  | 6.15           |
| 14 | C12       | 98   | F    | 9.51          | 94  | 8.46          | 143 | 6.09          |     | N/A            |
|    | LEH-KUHN  |      |      | 9.04          |     | -1.18         |     | 0.64          |     | N/A            |
| 15 | E106      | 29   | E    | 8.77          |     | N/A           |     | N/A           |     | N/A            |
| 16 | E16       | 57   | D    | 8.54          | 4   | 16.89         | 9   | 12.80         | 18  | 7.55           |
| 17 | C67       | 27   | E    | 8.42          | 116 | 7.74          | 114 | 7.08          | 94  | 4.52           |
| 18 | E49       | 52   | C    | 8.16          | 49  | 10.32         | 24  | 10.85         | 88  | 4.61           |
| 19 | E68       | 56   | C    | 8.02          | 65  | 9.59          | 63  | 8.48          | 101 | 4.20           |
| 20 | C90       | 14   | C    | 7.98          |     | N/A           |     | N/A           |     | N/A            |
| 21 | C37       | 24   | F    | 7.77          | 188 | 4.58          | 181 | 4.25          |     | N/A            |
|    | SALOMON   |      |      | 7.43          |     | -3.85         |     | -1.23         |     | 2.76           |
| 22 | C99       | 72   | B    | 7.32          | 26  | 11.71         | 3   | 14.32         | 1   | 21.63          |
| 23 | C65       | 51   | C    | 7.16          | 13  | 13.80         | 23  | 10.96         | 10  | 8.45           |
| 24 | E111      | 31   | E    | 6.96          |     | N/A           |     | N/A           |     | N/A            |
| 25 | E82       | 38   | F    | 6.43          | 113 | 7.79          | 121 | 6.72          | 46  | 5.66           |
| 26 | E109      | 24   | F    | 5.88          | 157 | 6.35          | 165 | 5.12          | 125 | 3.52           |
| 27 | E80       | 25   | C    | 5.57          | 63  | 9.61          | 33  | 10.14         | 52  | 5.49           |
| 28 | C34       | 57   | C    | 5.54          | 50  | 10.31         | 41  | 9.69          | 123 | 3.59           |
| 29 | C86       | 38   | D    | 5.31          | 82  | 8.79          | 78  | 8.22          | 15  | 7.66           |
| 30 | E110      | 39   | A    | 5.16          | 108 | 8.02          | 74  | 8.32          |     | N/A            |
| 31 | C22       | 41   | A    | 5.14          | 37  | 10.99         | 45  | 9.51          | 60  | 5.31           |
| 32 | C70       | 55   | D    | 5.11          | 58  | 10.04         | 82  | 8.06          | 31  | 6.19           |
| 33 | C38       | 33   | C    | 5.04          | 87  | 8.61          | 53  | 9.06          | 12  | 8.04           |
| 34 | C10       | 52   | F    | 4.98          | 203 | 2.95          | 174 | 4.58          |     | N/A            |
| 35 | C83       | 33   | D    | 4.85          | 107 | 8.04          | 77  | 8.24          | 96  | 4.38           |
| 36 | C89       | 24   | D    | 4.70          | 143 | 7.04          | 126 | 6.63          |     | N/A            |
| 37 | C61       | 39   | A    | 4.63          | 181 | 5.10          |     | N/A           |     | N/A            |
| 38 | C35       | 51   | C    | 4.54          | 10  | 13.95         | 4   | 13.85         | 4   | 10.65          |
| 39 | C88       | 32   | D    | 4.43          | 66  | 9.53          | 79  | 8.14          | 50  | 5.54           |
| 40 | E83       | 50   | F    | 4.32          | 156 | 6.44          | 151 | 5.70          | 119 | 3.67           |



ALL ENDOWMENT POOLS  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 41 | C92          | 23       | E    | 4.30 %           | 134 | 7.29 %           | 111 | 7.16 %           | 110 | 3.90 %            |
| 42 | E60          | 51       | D    | 4.27             | 51  | 10.26            | 99  | 7.48             | 90  | 4.59              |
| 43 | C9           | 51       | A    | 3.81             | 95  | 8.44             | 110 | 7.18             | 53  | 5.49              |
| 44 | E84          | 35       | F    | 3.80             | 104 | 8.15             | 89  | 7.85             |     | N/A               |
| 45 | E35          | 59       | C    | 3.80             | 97  | 8.36             | 103 | 7.40             | 133 | 3.12              |
| 46 | E113         | 65       | F    | 3.62             |     | N/A              |     | N/A              |     | N/A               |
| 47 | C64          | 20       | E    | 3.44             | 158 | 6.33             | 160 | 5.39             | 55  | 5.40              |
| 48 | E28          | 17       | A    | 3.28             | 183 | 4.99             | 135 | 6.33             | 106 | 4.06              |
| 49 | E51          | 47       | C    | 3.10             | 47  | 10.44            | 25  | 10.69            | 24  | 6.84              |
| 50 | E65          | 53       | C    | 3.04             | 39  | 10.94            | 55  | 8.99             | 54  | 5.45              |
| 51 | C50          | 48       | F    | 3.02             | 121 | 7.50             | 117 | 6.87             | 78  | 4.77              |
| 52 | E50          | 29       | C    | 2.87             | 9   | 14.05            | 18  | 11.48            | 137 | 2.77              |
| 53 | E22          | 38       | D    | 2.82             | 198 | 3.53             | 187 | 3.79             | 83  | 4.70              |
| 54 | C20          | 55       | B    | 2.79             | 84  | 8.68             | 83  | 8.05             | 41  | 5.73              |
| 55 | E20          | 46       | C    | 2.68             | 17  | 13.18            | 37  | 9.99             | 22  | 7.39              |
| 56 | E88          | 14       | F    | 2.68             | 210 | -1.36            | 195 | 0.53             | 121 | 3.66              |
| 57 | E23          | 44       | F    | 2.59             | 202 | 3.14             | 183 | 4.09             | 146 | 2.09              |
| 58 | C62          | 70       | D    | 2.58             | 207 | 2.29             | 189 | 3.46             |     | N/A               |
| 59 | C54          | 37       | A    | 2.56             | 44  | 10.74            | 5   | 13.70            | 11  | 8.15              |
| 60 | E115         | 66       | E    | 2.53             |     | N/A              |     | N/A              |     | N/A               |
| 61 | C19          | 49       | D    | 2.46             | 190 | 4.53             | 178 | 4.34             |     | N/A               |
| 62 | E93          | 57       | B    | 2.35             | 16  | 13.19            | 27  | 10.57            |     | N/A               |
| 63 | E64          | 57       | E    | 2.30             | 48  | 10.39            | 39  | 9.80             | 144 | 2.29              |
| 64 | C21          | 39       | C    | 2.23             | 85  | 8.67             | 149 | 5.76             | 138 | 2.70              |
| 65 | C46          | 33       | D    | 2.14             | 106 | 8.05             | 122 | 6.72             | 81  | 4.72              |
| 66 | C44          | 57       | F    | 2.12             | 14  | 13.29            | 10  | 12.66            | 44  | 5.69              |
| 67 | C13          | 61       | D    | 1.99             | 7   | 14.66            | 2   | 14.59            | 2   | 14.68             |
| 68 | C36          | 41       | E    | 1.94             | 175 | 5.51             | 163 | 5.19             |     | N/A               |
| 69 | E9           | 32       | E    | 1.83             | 195 | 4.03             | 171 | 4.82             |     | N/A               |
| 70 | E41          | 40       | E    | 1.77             | 189 | 4.54             | 184 | 4.07             | 142 | 2.34              |
| 71 | E96          | 49       | B    | 1.72             | 71  | 9.24             | 88  | 7.85             |     | N/A               |
| 72 | E59          | 44       | D    | 1.65             | 83  | 8.78             | 102 | 7.41             | 84  | 4.68              |
| 73 | C95          | 43       | E    | 1.40             | 78  | 9.04             | 87  | 7.89             | 56  | 5.38              |
| 74 | C18          | 40       | D    | 1.38             | 32  | 11.21            | 35  | 10.04            | 7   | 9.53              |
| 75 | C15          | 54       | A    | 1.36             | 24  | 11.80            | 31  | 10.20            | 74  | 4.92              |
| 76 | C101         | 50       | D    | 1.29             |     | N/A              |     | N/A              |     | N/A               |
| 77 | C75          | 56       | E    | 1.25             | 132 | 7.33             | 128 | 6.61             | 95  | 4.46              |
| 78 | E27          | 54       | B    | 1.10             | 40  | 10.89            | 60  | 8.54             | 89  | 4.59              |
| 79 | C72          | 48       | A    | 1.09             | 125 | 7.45             | 109 | 7.22             | 13  | 7.90              |
| 80 | C58          | 79       | D    | 1.07             | 81  | 8.81             | 90  | 7.82             | 127 | 3.45              |
| 81 | C55          | 77       | A    | 1.05             | 43  | 10.81            | 43  | 9.59             | 14  | 7.76              |
| 82 | E98          | 61       | F    | 0.98             | 46  | 10.52            | 50  | 9.10             | 36  | 5.95              |
| 83 | C17          | 69       | C    | 0.93             | 130 | 7.38             | 154 | 5.58             | 70  | 5.04              |
| 84 | E8           | 54       | A    | 0.91             | 25  | 11.74            | 38  | 9.94             | 51  | 5.50              |
| 85 | C73          | 50       | F    | 0.70             | 159 | 6.32             | 162 | 5.33             |     | N/A               |

ALL ENDOWMENT POOLS  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| CODE<br>NAME | EQ<br>#* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 86 C43       | 67       | F    | 0.67%            | 6   | 16.03%           | 19  | 11.48%           |     | N/A%              |
| 87 E100      | 59       | B    | 0.59             | 147 | 6.87             | 140 | 6.13             |     | N/A               |
| 88 C5        | 30       | D    | 0.56             | 168 | 5.88             | 137 | 6.25             | 58  | 5.34              |
| 89 E29       | 63       | A    | 0.53             | 60  | 9.95             | 69  | 8.41             | 104 | 4.08              |
| 90 E70       | 63       | D    | 0.52             | 76  | 9.14             | 66  | 8.46             |     | N/A               |
| 91 C1        | 67       | D    | 0.31             | 120 | 7.61             | 129 | 6.56             |     | N/A               |
| 92 E32       | 47       | C    | 0.29             | 141 | 7.08             | 142 | 6.10             | 79  | 4.76              |
| 93 E48       | 52       | E    | 0.18             | 119 | 7.68             | 46  | 9.36             |     | N/A               |
| 94 E78       | 44       | D    | 0.18             | 185 | 4.95             | 173 | 4.63             | 85  | 4.68              |
| 95 E114      | 33       | E    | 0.14             | 99  | 8.29             | 176 | 4.42             | 77  | 4.81              |
| 96 E74       | 59       | D    | 0.05             | 161 | 6.15             |     | N/A              |     | N/A               |
| 97 C49       | 51       | D    | 0.01             | 196 | 3.98             | 180 | 4.26             | 145 | 2.23              |
| 98 C94       | 17       | D    | -0.06            | 105 | 8.11             | 48  | 9.25             |     | N/A               |
| 99 E1        | 55       | A    | -0.08            | 34  | 11.12            | 47  | 9.29             | 124 | 3.56              |
| 100 C103     | 49       | D    | -0.15            | 124 | 7.46             |     | N/A              |     | N/A               |
| 101 E13      | 35       | D    | -0.30            | 201 | 3.18             | 188 | 3.61             | 92  | 4.57              |
| 102 E61      | 64       | D    | -0.33            | 96  | 8.40             | 125 | 6.66             |     | N/A               |
| 103 C80      | 60       | F    | -0.40            | 111 | 7.85             | 138 | 6.23             | 126 | 3.46              |
| 104 E90      | 51       | A    | -0.42            | 178 | 5.47             | 161 | 5.37             |     | N/A               |
| 105 E31      | 44       | A    | -0.47            | 165 | 5.94             | 150 | 5.70             |     | N/A               |
| 106 E18      | 68       | A    | -0.51            | 127 | 7.43             | 112 | 7.13             | 107 | 4.05              |
| 107 E57      | 55       | A    | -0.57            | 93  | 8.47             | 94  | 7.56             | 37  | 5.81              |
| 108 C33      | 48       | F    | -0.60            | 204 | 2.59             | 191 | 2.85             |     | N/A               |
| 109 C91      | 51       | F    | -0.65            | 200 | 3.36             | 185 | 4.06             | 132 | 3.30              |
| 110 C100     | 39       | D    | -0.79            | 135 | 7.27             | 123 | 6.69             |     | N/A               |
| 111 E73      | 50       | A    | -0.79            | 133 | 7.29             | 124 | 6.68             | 76  | 4.84              |
| 112 C57      | 46       | C    | -0.81            | 53  | 10.20            | 85  | 7.99             | 147 | 1.81              |
| 113 C3       | 57       | B    | -0.86            | 184 | 4.97             | 179 | 4.29             | 105 | 4.06              |
| 114 C41      | 66       | D    | -0.87            | 163 | 6.07             | 107 | 7.33             | 30  | 6.27              |
| 115 C47      | 45       | D    | -0.95            | 199 | 3.48             | 190 | 3.33             | 111 | 3.88              |
| 116 E89      | 37       | B    | -1.01            | 5   | 16.19            | 17  | 11.57            |     | N/A               |
| 117 E104     | 60       | F    | -1.01            | 109 | 8.00             |     | N/A              |     | N/A               |
| 118 C56      | 59       | A    | -1.14            | 86  | 8.63             | 61  | 8.50             | 59  | 5.32              |
| 119 E39      | 52       | D    | -1.20            | 176 | 5.51             | 159 | 5.39             | 128 | 3.41              |
| 120 E72      | 58       | B    | -1.22            | 100 | 8.25             | 95  | 7.55             | 48  | 5.58              |
| 121 E47      | 60       | B    | -1.22            | 142 | 7.06             |     | N/A              |     | N/A               |
| 122 E44      | 50       | F    | -1.24            | 148 | 6.86             | 157 | 5.47             | 118 | 3.71              |
| 123 E66      | 55       | C    | -1.24            | 110 | 8.00             | 100 | 7.42             |     | N/A               |
| 124 E2       | 62       | D    | -1.24            | 164 | 6.04             | 115 | 7.03             | 112 | 3.77              |
| 125 C29      | 57       | A    | -1.30            | 70  | 9.29             | 97  | 7.52             | 91  | 4.59              |
| 126 E6       | 51       | B    | -1.31            | 54  | 10.15            | 81  | 8.07             | 34  | 6.01              |
| 127 E103     | 61       | E    | -1.32            | 90  | 8.53             |     | N/A              |     | N/A               |
| 128 E42      | 54       | E    | -1.32            | 64  | 9.61             | 84  | 7.99             | 42  | 5.73              |
| 129 C16      | 57       | C    | -1.38            | 166 | 5.94             | 164 | 5.17             | 129 | 3.32              |

ALL ENDOWMENT POOLS  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #   | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|-----|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 130 | C8           | 57       | B    | -1.46%           | 68  | 9.42%            | 86  | 7.94%            |     | N/A%              |
| 131 | E85          | 44       | C    | -1.48            | 137 | 7.17             | 116 | 6.94             |     | N/A               |
| 132 | C96          | 44       | A    | -1.52            | 187 | 4.71             | 120 | 6.77             |     | N/A               |
| 133 | C39          | 45       | D    | -1.52            | 171 | 5.74             | 152 | 5.62             | 148 | 1.62              |
| 134 | C79          | 57       | D    | -1.62            | 191 | 4.44             | 175 | 4.44             | 115 | 3.74              |
| 135 | E37          | 48       | B    | -1.72            | 55  | 10.14            | 54  | 9.01             | 26  | 6.65              |
| 136 | C23          | 56       | E    | -1.75            | 1   | 20.03            | 6   | 13.51            | 35  | 5.97              |
| 137 | E95          | 50       | C    | -2.01            | 151 | 6.70             | 141 | 6.11             | 131 | 3.30              |
| 138 | C68          | 60       | A    | -2.13            | 179 | 5.18             |     | N/A              |     | N/A               |
| 139 | E24          | 62       | D    | -2.27            | 153 | 6.59             | 132 | 6.49             | 38  | 5.78              |
| 140 | E91          | 53       | F    | -2.31            | 131 | 7.33             | 131 | 6.52             | 49  | 5.55              |
| 141 | C97          | 44       | E    | -2.40            | 118 | 7.69             | 194 | 1.12             | 109 | 3.91              |
| 142 | E67          | 65       | C    | -2.44            | 162 | 6.10             | 147 | 5.92             | 65  | 5.15              |
| 143 | E99          | 53       | D    | -2.45            | 21  | 12.47            | 11  | 12.45            |     | N/A               |
| 144 | C32          | 13       | E    | -2.66            | 170 | 5.82             | 21  | 11.06            | 3   | 11.06             |
| 145 | E63          | 59       | A    | -3.00            | 91  | 8.52             | 64  | 8.48             | 114 | 3.76              |
| 146 | E69          | 64       | B    | -3.00            | 182 | 5.01             | 156 | 5.54             | 150 | 0.68              |
| 147 | E92          | 61       | F    | -3.20            | 172 | 5.73             | 168 | 5.01             | 28  | 6.51              |
| 148 | C52          | 51       | F    | -3.24            | 174 | 5.54             | 146 | 5.98             | 66  | 5.07              |
| 149 | C71          | 27       | D    | -3.39            | 155 | 6.48             | 104 | 7.37             |     | N/A               |
| 150 | C78          | 42       | D    | -3.45            | 197 | 3.96             | 177 | 4.37             | 149 | 1.30              |
| 151 | E55          | 63       | C    | -3.48            | 150 | 6.73             |     | N/A              |     | N/A               |
| 152 | E17          | 60       | B    | -3.65            | 180 | 5.15             | 169 | 4.99             | 63  | 5.18              |
| 153 | C14          | 58       | C    | -3.74            | 8   | 14.54            | 14  | 12.31            |     | N/A               |
| 154 | C53          | 48       | F    | -3.78            | 144 | 7.02             | 101 | 7.41             |     | N/A               |
| 155 | E53          | 67       | B    | -3.78            | 73  | 9.22             | 59  | 8.62             | 23  | 6.96              |
| 156 | C45          | 62       | D    | -3.83            | 122 | 7.49             |     | N/A              |     | N/A               |
| 157 | C76          | 52       | D    | -4.01            | 67  | 9.51             | 106 | 7.35             | 97  | 4.32              |
| 158 | E62          | 68       | E    | -4.08            | 102 | 8.24             | 91  | 7.67             | 67  | 5.06              |
| 159 | E14          | 66       | D    | -4.33            | 177 | 5.51             | 153 | 5.60             | 73  | 4.94              |
| 160 | C2           | 50       | B    | -4.38            | 128 | 7.42             | 113 | 7.10             | 71  | 5.01              |
| 161 | E10          | 67       | D    | -4.40            | 152 | 6.69             | 136 | 6.31             | 140 | 2.48              |
| 162 | E36          | 60       | A    | -4.47            | 31  | 11.28            | 36  | 10.01            | 57  | 5.34              |
| 163 | C31          | 59       | B    | -4.51            | 45  | 10.65            | 119 | 6.78             |     | N/A               |
| 164 | E105         | 65       | F    | -4.63            | 59  | 10.00            |     | N/A              |     | N/A               |
| 165 | E81          | 47       | D    | -4.72            | 79  | 8.87             | 130 | 6.54             | 136 | 2.99              |
| 166 | C82          | 70       | B    | -4.91            | 80  | 8.81             | 70  | 8.39             | 134 | 3.09              |
| 167 | E77          | 55       | F    | -4.91            | 192 | 4.18             | 167 | 5.01             | 113 | 3.76              |
| 168 | E71          | 57       | C    | -5.13            | 169 | 5.84             | 155 | 5.58             | 93  | 4.55              |
| 169 | E79          | 59       | D    | -5.26            | 112 | 7.81             | 93  | 7.57             | 86  | 4.63              |
| 170 | C42          | 70       | B    | -5.50            | 72  | 9.24             | 80  | 8.11             | 120 | 3.67              |
| 171 | E40          | 67       | A    | -5.57            | 41  | 10.87            | 68  | 8.42             | 69  | 5.06              |
| 172 | C28          | 76       | C    | -5.62            | 30  | 11.29            | 22  | 11.06            |     | N/A               |
| 173 | E45          | 56       | A    | -5.69            | 61  | 9.72             | 52  | 9.09             | 27  | 6.63              |

ALL ENDOWMENT POOLS  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 174 E108     | 59       | C    | -5.70 %          | 173 | 5.59 %           | 170 | 4.92 %           | 75  | 4.89 %            |
| 175 E30      | 62       | A    | -5.93            | 20  | 12.89            | 49  | 9.12             | 80  | 4.76              |
| 176 E11      | 17       | A    | -6.00            | 35  | 11.12            | 32  | 10.16            | 40  | 5.78              |
| 177 C66      | 59       | D    | -6.28            | 12  | 13.82            | 16  | 11.68            |     | N/A               |
| 178 E97      | 64       | F    | -6.29            | 194 | 4.12             | 166 | 5.06             | 29  | 6.43              |
| 179 E4       | 67       | D    | -6.59            | 167 | 5.89             | 127 | 6.63             | 135 | 3.02              |
| 180 E86      | 64       | D    | -6.86            | 154 | 6.51             |     | N/A              |     | N/A               |
| 181 E21      | 65       | A    | -7.24            | 98  | 8.33             | 73  | 8.32             | 108 | 3.95              |
| 182 C98      | 62       | D    | -7.28            | 129 | 7.38             | 42  | 9.60             | 6   | 9.97              |
| 183 E107     | 66       | F    | -7.37            | 193 | 4.17             | 172 | 4.76             | 72  | 4.95              |
| 184 E76      | 65       | F    | -7.37            | 149 | 6.76             | 144 | 6.08             | 98  | 4.26              |
| 185 C84      | 29       | C    | -7.64            | 208 | -0.02            | 193 | 1.57             | 139 | 2.51              |
| 186 E38      | 66       | A    | -7.70            | 103 | 8.18             | 98  | 7.50             | 32  | 6.15              |
| 187 E46      | 80       | A    | -7.81            | 123 | 7.48             | 96  | 7.54             | 102 | 4.20              |
| 188 C87      | 53       | D    | -7.96            | 74  | 9.21             | 75  | 8.27             | 141 | 2.43              |
| 189 E33      | 75       | A    | -7.96            | 101 | 8.25             | 56  | 8.79             | 99  | 4.25              |
| 190 C4       | 81       | C    | -8.62            | 139 | 7.13             | 118 | 6.78             |     | N/A               |
| 191 C102     | 71       | D    | -8.68            | 136 | 7.20             |     | N/A              |     | N/A               |
| 192 E56      | 59       | B    | -8.80            | 146 | 6.92             | 134 | 6.38             | 117 | 3.72              |
| 193 C26      | 47       | E    | -8.81            |     | N/A              |     | N/A              |     | N/A               |
| 194 E12      | 59       | F    | -8.97            | 29  | 11.59            | 44  | 9.52             |     | N/A               |
| 195 C25      | 12       | A    | -9.03            | 92  | 8.52             | 71  | 8.38             | 20  | 7.46              |
| 196 E102     | 72       | D    | -9.65            | 3   | 17.37            | 1   | 17.35            | 9   | 9.23              |
| 197 C93      | 77       | C    | -9.82            | 88  | 8.60             | 72  | 8.34             | 17  | 7.56              |
| 198 E19      | 71       | B    | -9.91            | 62  | 9.66             | 30  | 10.46            | 61  | 5.27              |
| 199 C48      | 60       | B    | -10.02           | 56  | 10.12            | 26  | 10.66            |     | N/A               |
| 200 E3       | 68       | D    | -10.64           | 186 | 4.80             | 148 | 5.81             | 100 | 4.23              |
| 201 E101     | 73       | D    | -10.85           | 117 | 7.73             | 108 | 7.28             |     | N/A               |
| 202 E52      | 77       | D    | -10.95           | 138 | 7.13             | 139 | 6.18             | 116 | 3.74              |
| D-JONES      |          |      | -11.70           |     | 4.88             |     | 3.45             |     | 3.70              |
| SP500        |          |      | -11.76           |     | 7.68             |     | 7.19             |     | 4.79              |
| 203 E54      | 71       | C    | -11.85           | 18  | 13.01            | 7   | 13.24            | 45  | 5.66              |
| 204 E43      | 72       | C    | -11.89           | 115 | 7.74             | 40  | 9.74             | 16  | 7.63              |
| 205 C77      | 89       | A    | -12.40           | 114 | 7.78             | 76  | 8.26             | 21  | 7.46              |
| SP-IND       |          |      | -12.64           |     | 7.63             |     | 7.21             |     | 4.49              |
| COM-FDEQ     | 95       | A    | -13.25           |     | 11.31            |     | 12.72            |     | 5.35              |
| 206 E5       | 76       | B    | -13.28           | 19  | 13.01            | 13  | 12.37            | 68  | 5.06              |
| 207 E34      | 70       | A    | -13.35           | 27  | 11.70            | 28  | 10.50            | 87  | 4.61              |
| 208 C63      | 77       | C    | -13.49           | 22  | 11.91            | 12  | 12.39            | 62  | 5.24              |
| 209 E25      | 80       | D    | -13.52           | 15  | 13.25            | 15  | 12.09            | 39  | 5.78              |
| 210 C24      | 80       | D    | -13.79           | 145 | 6.93             | 105 | 7.36             |     | N/A               |
| 211 C27      | 79       | E    | -13.81           | 209 | -1.03            | 186 | 3.97             |     | N/A               |
| 212 E26      | 74       | D    | -14.05           | 77  | 9.12             | 34  | 10.08            | 82  | 4.71              |
| 213 E75      | 74       | C    | -14.53           | 126 | 7.44             | 133 | 6.46             | 25  | 6.69              |

ALL ENDOWMENT POOLS  
 AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
 FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>#* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #   | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|-----|------------------|-----|------------------|-----|-------------------|
| 214     | C40          | 51       | E    | -14.61%          | 52  | 10.25%           | 58  | 8.65%            | 5   | 10.32%            |
| 215     | E112         | 72       | C    | -14.72           |     | N/A              |     | N/A              |     | N/A               |
| 216     | E94          | 73       | D    | -15.35           | 11  | 13.93            | 8   | 12.92            |     | N/A               |
| 217     | E15          | 49       | C    | -15.61           | 160 | 6.28             | 158 | 5.46             | 130 | 3.31              |
| 218     | C51          | 59       | F    | -16.53           | 206 | 2.30             | 182 | 4.15             |     | N/A               |
| AVERAGE |              | 218      |      | -0.93%           | 210 | 8.31%            | 195 | 7.70%            | 150 | 5.21%             |



POOLS WITH A  
TOTAL RETURN INVESTMENT OBJECTIVE  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 1  | E7           | 48       | F    | 14.64%           | 28 | 10.83%           | 39 | 8.44%            | 60 | 2.31%             |
| 2  | C7           | 8        | A    | 12.90            | 16 | 11.85            | 32 | 9.10             | 46 | 3.61              |
| 3  | C11          | 72       | C    | 12.86            | 1  | 17.72            |    | N/A              |    | N/A               |
|    | COM-FDRD     | 0        | A    | 10.98            |    | 0.10             |    | 2.30             |    | N/A               |
|    | LEH-KUHN     |          |      | 9.04             |    | -1.18            |    | 0.64             |    | N/A               |
| 4  | E16          | 57       | D    | 8.54             | 2  | 16.89            | 4  | 12.80            | 6  | 7.55              |
| 5  | E49          | 52       | C    | 8.16             | 32 | 10.32            | 15 | 10.85            | 31 | 4.61              |
| 6  | E68          | 56       | C    | 8.02             | 40 | 9.59             | 37 | 8.48             | 38 | 4.20              |
|    | SALOMON      |          |      | 7.43             |    | -3.85            |    | -1.23            |    | 2.76              |
| 7  | C99          | 72       | B    | 7.32             | 19 | 11.71            | 1  | 14.32            | 1  | 21.63             |
| 8  | E109         | 24       | F    | 5.88             | 76 | 6.35             | 75 | 5.12             | 49 | 3.52              |
| 9  | C34          | 57       | C    | 5.54             | 33 | 10.31            | 27 | 9.69             | 47 | 3.59              |
| 10 | C22          | 41       | A    | 5.14             | 25 | 10.99            | 29 | 9.51             | 23 | 5.31              |
| 11 | C10          | 52       | F    | 4.98             | 86 | 2.95             | 76 | 4.58             |    | N/A               |
| 12 | C83          | 33       | D    | 4.85             | 53 | 8.04             | 45 | 8.24             | 34 | 4.38              |
| 13 | C35          | 51       | C    | 4.54             | 6  | 13.95            | 2  | 13.85            | 2  | 10.65             |
| 14 | E51          | 47       | C    | 3.10             | 30 | 10.44            | 16 | 10.69            | 9  | 6.84              |
| 15 | E65          | 53       | C    | 3.04             | 26 | 10.94            | 35 | 8.99             | 21 | 5.45              |
| 16 | C50          | 48       | F    | 3.02             | 59 | 7.50             | 58 | 6.87             | 30 | 4.77              |
| 17 | E50          | 29       | C    | 2.87             | 5  | 14.05            | 13 | 11.48            | 57 | 2.77              |
| 18 | C20          | 55       | B    | 2.79             | 47 | 8.68             | 47 | 8.05             | 17 | 5.73              |
| 19 | E20          | 46       | C    | 2.68             | 11 | 13.18            | 24 | 9.99             | 8  | 7.39              |
| 20 | E93          | 57       | B    | 2.35             | 10 | 13.19            | 18 | 10.57            |    | N/A               |
| 21 | E64          | 57       | E    | 2.30             | 31 | 10.39            | 26 | 9.80             | 61 | 2.29              |
| 22 | C44          | 57       | F    | 2.12             | 8  | 13.29            | 5  | 12.66            | 18 | 5.69              |
| 23 | C18          | 40       | D    | 1.38             | 22 | 11.21            | 22 | 10.04            | 4  | 9.53              |
| 24 | C15          | 54       | A    | 1.36             | 17 | 11.80            | 20 | 10.20            | 29 | 4.92              |
| 25 | C75          | 56       | E    | 1.25             | 65 | 7.33             | 62 | 6.61             | 33 | 4.46              |
| 26 | C58          | 79       | D    | 1.07             | 46 | 8.81             | 50 | 7.82             | 51 | 3.45              |
| 27 | E98          | 61       | F    | 0.98             | 29 | 10.52            | 33 | 9.10             | 13 | 5.95              |
| 28 | E8           | 54       | A    | 0.91             | 18 | 11.74            | 25 | 9.94             | 20 | 5.50              |
| 29 | C43          | 67       | F    | 0.67             | 3  | 16.03            | 12 | 11.48            |    | N/A               |
| 30 | E29          | 63       | A    | 0.53             | 37 | 9.95             | 41 | 8.41             | 39 | 4.08              |
| 31 | E48          | 52       | E    | 0.18             | 58 | 7.68             | 30 | 9.36             |    | N/A               |
| 32 | E74          | 59       | D    | 0.05             | 77 | 6.15             |    | N/A              |    | N/A               |
| 33 | E1           | 55       | A    | -0.08            | 24 | 11.12            | 31 | 9.29             | 48 | 3.56              |
| 34 | E61          | 64       | D    | -0.33            | 50 | 8.40             | 60 | 6.66             |    | N/A               |
| 35 | C80          | 60       | F    | -0.40            | 55 | 7.85             | 67 | 6.23             | 50 | 3.46              |
| 36 | E18          | 68       | A    | -0.51            | 62 | 7.43             | 56 | 7.13             | 41 | 4.05              |
| 37 | C57          | 46       | C    | -0.81            | 34 | 10.20            | 48 | 7.99             | 62 | 1.81              |
| 38 | C3           | 57       | B    | -0.86            | 83 | 4.97             | 77 | 4.29             | 40 | 4.06              |
| 39 | E39          | 52       | D    | -1.20            | 81 | 5.51             | 73 | 5.39             | 52 | 3.41              |
| 40 | E47          | 60       | B    | -1.22            | 68 | 7.06             |    | N/A              |    | N/A               |



POOLS WITH A  
TOTAL RETURN INVESTMENT OBJECTIVE  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 41 | E66          | 55       | C    | -1.24%           | 54 | 8.00%            | 52 | 7.42%            |    | N/A%              |
| 42 | C16          | 57       | C    | -1.38            | 78 | 5.94             | 74 | 5.17             | 53 | 3.32              |
| 43 | C8           | 57       | B    | -1.46            | 42 | 9.42             | 49 | 7.94             |    | N/A               |
| 44 | C96          | 44       | A    | -1.52            | 85 | 4.71             | 59 | 6.77             |    | N/A               |
| 45 | E95          | 50       | C    | -2.01            | 71 | 6.70             | 69 | 6.11             | 54 | 3.30              |
| 46 | E24          | 62       | D    | -2.27            | 73 | 6.59             | 64 | 6.49             | 16 | 5.78              |
| 47 | C97          | 44       | E    | -2.40            | 57 | 7.69             | 79 | 1.12             | 42 | 3.91              |
| 48 | E99          | 53       | D    | -2.45            | 14 | 12.47            | 6  | 12.45            |    | N/A               |
| 49 | E63          | 59       | A    | -3.00            | 49 | 8.52             | 38 | 8.48             | 43 | 3.76              |
| 50 | E69          | 64       | B    | -3.00            | 82 | 5.01             | 72 | 5.54             | 63 | 0.68              |
| 51 | C71          | 27       | D    | -3.39            | 75 | 6.48             | 53 | 7.37             |    | N/A               |
| 52 | E55          | 63       | C    | -3.48            | 70 | 6.73             |    | N/A              |    | N/A               |
| 53 | C14          | 58       | C    | -3.74            | 4  | 14.54            | 9  | 12.31            |    | N/A               |
| 54 | C45          | 62       | D    | -3.83            | 60 | 7.49             |    | N/A              |    | N/A               |
| 55 | C76          | 52       | D    | -4.01            | 41 | 9.51             | 55 | 7.35             | 35 | 4.32              |
| 56 | C2           | 50       | B    | -4.38            | 63 | 7.42             | 57 | 7.10             | 28 | 5.01              |
| 57 | E10          | 67       | D    | -4.40            | 72 | 6.69             | 66 | 6.31             | 58 | 2.48              |
| 58 | E36          | 60       | A    | -4.47            | 21 | 11.28            | 23 | 10.01            | 22 | 5.34              |
| 59 | E105         | 65       | F    | -4.63            | 36 | 10.00            |    | N/A              |    | N/A               |
| 60 | E81          | 47       | D    | -4.72            | 45 | 8.87             | 63 | 6.54             | 56 | 2.99              |
| 61 | E71          | 57       | C    | -5.13            | 80 | 5.84             | 71 | 5.58             | 32 | 4.55              |
| 62 | C42          | 70       | B    | -5.50            | 43 | 9.24             | 46 | 8.11             | 45 | 3.67              |
| 63 | E40          | 67       | A    | -5.57            | 27 | 10.87            | 40 | 8.42             | 26 | 5.06              |
| 64 | C28          | 76       | C    | -5.62            | 20 | 11.29            | 14 | 11.06            |    | N/A               |
| 65 | E45          | 56       | A    | -5.69            | 38 | 9.72             | 34 | 9.09             | 11 | 6.63              |
| 66 | E11          | 17       | A    | -6.00            | 23 | 11.12            | 21 | 10.16            | 15 | 5.78              |
| 67 | C66          | 59       | D    | -6.28            | 7  | 13.82            | 11 | 11.68            |    | N/A               |
| 68 | E4           | 67       | D    | -6.59            | 79 | 5.89             | 61 | 6.63             | 55 | 3.02              |
| 69 | E86          | 64       | D    | -6.86            | 74 | 6.51             |    | N/A              |    | N/A               |
| 70 | C98          | 62       | D    | -7.28            | 64 | 7.38             | 28 | 9.60             | 3  | 9.97              |
| 71 | E38          | 66       | A    | -7.70            | 52 | 8.18             | 51 | 7.50             | 12 | 6.15              |
| 72 | C87          | 53       | D    | -7.96            | 44 | 9.21             | 43 | 8.27             | 59 | 2.43              |
| 73 | E33          | 75       | A    | -7.96            | 51 | 8.25             | 36 | 8.79             | 36 | 4.25              |
| 74 | C102         | 71       | D    | -8.68            | 66 | 7.20             |    | N/A              |    | N/A               |
| 75 | C26          | 47       | E    | -8.81            |    | N/A              |    | N/A              |    | N/A               |
| 76 | C93          | 77       | C    | -9.82            | 48 | 8.60             | 42 | 8.34             | 5  | 7.56              |
| 77 | E19          | 71       | B    | -9.91            | 39 | 9.66             | 19 | 10.46            | 24 | 5.27              |
| 78 | C48          | 60       | B    | -10.02           | 35 | 10.12            | 17 | 10.66            |    | N/A               |
| 79 | E3           | 68       | D    | -10.64           | 84 | 4.80             | 70 | 5.81             | 37 | 4.23              |
| 80 | E52          | 77       | D    | -10.95           | 67 | 7.13             | 68 | 6.18             | 44 | 3.74              |
|    | D-JONES      |          |      | -11.70           |    | 4.88             |    | 3.45             |    | 3.70              |
|    | SP500        |          |      | -11.76           |    | 7.68             |    | 7.19             |    | 4.79              |
| 81 | E54          | 71       | C    | -11.85           | 12 | 13.01            | 3  | 13.24            | 19 | 5.66              |
| 82 | C77          | 89       | A    | -12.40           | 56 | 7.78             | 44 | 8.26             | 7  | 7.46              |
|    | SP-IND       |          |      | -12.64           |    | 7.63             |    | 7.21             |    | 4.49              |
|    | COM-FDEQ     | 95       | A    | -13.25           |    | 11.31            |    | 12.72            |    | 5.35              |

POOLS WITH A  
TOTAL RETURN INVESTMENT OBJECTIVE  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 83      | E5           | 76       | B    | -13.28 %         | 13 | 13.01 %          | 8  | 12.37 %          | 27 | 5.06 %            |
| 84      | C63          | 77       | C    | -13.49           | 15 | 11.91            | 7  | 12.39            | 25 | 5.24              |
| 85      | E25          | 80       | D    | -13.52           | 9  | 13.25            | 10 | 12.09            | 14 | 5.78              |
| 86      | C24          | 80       | D    | -13.79           | 69 | 6.93             | 54 | 7.36             |    | N/A               |
| 87      | C27          | 79       | E    | -13.81           | 87 | -1.03            | 78 | 3.97             |    | N/A               |
| 88      | E75          | 74       | C    | -14.53           | 61 | 7.44             | 65 | 6.46             | 10 | 6.69              |
| AVERAGE |              | 88       |      | -2.17 %          | 87 | 9.29 %           | 79 | 8.62 %           | 63 | 5.07 %            |

POOLS WITH A  
BALANCED OR INCOME INVESTMENT OBJECTIVE  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|-----|------------------|-----|------------------|----|-------------------|
| 1  | C69          | 0        | D    | 15.69%           | 27  | 9.29%            | 42  | 7.66%            |    | N/A%              |
| 2  | C59          | 29       | B    | 15.22            | 31  | 9.17             |     | N/A              |    | N/A               |
| 3  | C6           | 14       | D    | 13.16            | 12  | 11.06            | 21  | 8.69             | 39 | 5.16              |
| 4  | C60          | 57       | B    | 12.38            | 11  | 11.15            | 11  | 10.47            | 13 | 7.50              |
| 5  | C85          | 31       | D    | 11.99            | 41  | 8.60             | 27  | 8.47             | 26 | 5.72              |
|    | COM-FDBD     | 0        | A    | 10.98            |     | 0.10             |     | 2.30             |    | N/A               |
| 6  | C30          | 43       | E    | 10.70            | 13  | 10.96            | 26  | 8.49             | 28 | 5.60              |
| 7  | C74          | 12       | D    | 10.38            | 22  | 10.06            | 7   | 11.18            | 4  | 9.27              |
| 8  | E87          | 5        | F    | 9.79             | 118 | 2.59             | 114 | 2.74             | 65 | 4.12              |
| 9  | C81          | 72       | C    | 9.75             | 9   | 11.64            |     | N/A              |    | N/A               |
| 10 | E58          | 43       | D    | 9.60             | 73  | 7.09             | 76  | 6.03             | 21 | 6.15              |
| 11 | C12          | 88       | F    | 9.51             | 45  | 8.46             | 74  | 6.09             |    | N/A               |
|    | LEH-KUHN     |          |      | 9.04             |     | -1.18            |     | 0.64             |    | N/A               |
| 12 | E106         | 29       | E    | 8.77             |     | N/A              |     | N/A              |    | N/A               |
| 13 | C67          | 27       | E    | 8.42             | 59  | 7.74             | 57  | 7.08             | 62 | 4.52              |
| 14 | C90          | 14       | C    | 7.98             |     | N/A              |     | N/A              |    | N/A               |
| 15 | C37          | 24       | F    | 7.77             | 103 | 4.58             | 04  | 4.25             |    | N/A               |
|    | SALOMON      |          |      | 7.43             |     | -3.85            |     | -1.23            |    | 2.76              |
| 16 | C65          | 51       | C    | 7.16             | 6   | 13.80            | 9   | 10.96            | 6  | 8.45              |
| 17 | E111         | 31       | E    | 6.96             |     | N/A              |     | N/A              |    | N/A               |
| 18 | E82          | 38       | F    | 6.43             | 58  | 7.79             | 63  | 6.72             | 27 | 5.66              |
| 19 | E80          | 25       | C    | 5.57             | 24  | 9.61             | 12  | 10.14            | 32 | 5.49              |
| 20 | C86          | 38       | D    | 5.31             | 36  | 8.79             | 33  | 8.22             | 11 | 7.66              |
| 21 | E110         | 39       | A    | 5.16             | 55  | 8.02             | 32  | 8.32             |    | N/A               |
| 22 | C70          | 55       | D    | 5.11             | 23  | 10.04            | 36  | 8.06             | 20 | 6.19              |
| 23 | C38          | 33       | C    | 5.04             | 40  | 8.61             | 19  | 9.06             | 8  | 8.04              |
| 24 | C89          | 24       | D    | 4.70             | 75  | 7.04             | 66  | 6.63             |    | N/A               |
| 25 | C61          | 39       | A    | 4.63             | 100 | 5.10             |     | N/A              |    | N/A               |
| 26 | C88          | 32       | D    | 4.43             | 26  | 9.53             | 34  | 8.14             | 31 | 5.54              |
| 27 | E83          | 50       | F    | 4.32             | 81  | 6.44             | 81  | 5.70             | 75 | 3.67              |
| 28 | C92          | 23       | E    | 4.30             | 69  | 7.29             | 56  | 7.16             | 68 | 3.90              |
| 29 | E60          | 51       | D    | 4.27             | 18  | 10.26            | 48  | 7.48             | 58 | 4.59              |
| 30 | C9           | 51       | A    | 3.81             | 46  | 8.44             | 55  | 7.18             | 33 | 5.49              |
| 31 | E35          | 59       | C    | 3.80             | 47  | 8.36             | 51  | 7.40             | 79 | 3.12              |
| 32 | E84          | 35       | F    | 3.80             | 52  | 8.15             | 39  | 7.85             |    | N/A               |
| 33 | E113         | 65       | F    | 3.62             |     | N/A              |     | N/A              |    | N/A               |
| 34 | C64          | 20       | E    | 3.44             | 82  | 6.33             | 87  | 5.39             | 34 | 5.40              |
| 35 | E28          | 17       | A    | 3.28             | 101 | 4.99             | 70  | 6.33             | 66 | 4.06              |
| 36 | E22          | 38       | D    | 2.82             | 113 | 3.53             | 109 | 3.79             | 53 | 4.70              |
| 37 | E88          | 14       | F    | 2.68             | 123 | -1.36            | 116 | 0.53             | 76 | 3.66              |
| 38 | E23          | 44       | F    | 2.59             | 117 | 3.14             | 106 | 4.09             | 85 | 2.09              |
| 39 | C62          | 70       | D    | 2.58             | 121 | 2.29             | 111 | 3.46             |    | N/A               |
| 40 | C54          | 37       | A    | 2.56             | 16  | 10.74            | 3   | 13.70            | 7  | 8.15              |

POOLS WITH A  
BALANCED OR INCOME INVESTMENT OBJECTIVE  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|-----|------------------|-----|------------------|----|-------------------|
| 41 | E115         | 66       | E    | 2.53%            |     | N/A%             |     | N/A%             |    | N/A%              |
| 42 | C19          | 49       | D    | 2.46             | 105 | 4.53             | 102 | 4.34             |    | N/A               |
| 43 | C21          | 39       | C    | 2.23             | 38  | 8.67             | 79  | 5.76             | 81 | 2.70              |
| 44 | C46          | 33       | D    | 2.14             | 54  | 8.05             | 62  | 6.72             | 51 | 4.72              |
| 45 | C13          | 61       | D    | 1.99             | 4   | 14.66            | 2   | 14.59            | 1  | 14.68             |
| 46 | C36          | 41       | E    | 1.94             | 96  | 5.51             | 90  | 5.19             |    | N/A               |
| 47 | E9           | 32       | E    | 1.83             | 110 | 4.03             | 96  | 4.82             |    | N/A               |
| 48 | E41          | 40       | E    | 1.77             | 104 | 4.54             | 107 | 4.07             | 83 | 2.34              |
| 49 | E96          | 49       | B    | 1.72             | 29  | 9.24             | 40  | 7.85             |    | N/A               |
| 50 | E59          | 44       | D    | 1.65             | 37  | 8.78             | 50  | 7.41             | 54 | 4.68              |
| 51 | C95          | 43       | E    | 1.40             | 34  | 9.04             | 38  | 7.89             | 35 | 5.38              |
| 52 | C101         | 50       | D    | 1.29             |     | N/A              |     | N/A              |    | N/A               |
| 53 | E27          | 54       | B    | 1.10             | 14  | 10.89            | 24  | 8.54             | 60 | 4.59              |
| 54 | C72          | 48       | A    | 1.09             | 65  | 7.45             | 54  | 7.22             | 9  | 7.90              |
| 55 | C55          | 77       | A    | 1.05             | 15  | 10.81            | 15  | 9.59             | 10 | 7.76              |
| 56 | C17          | 69       | C    | 0.93             | 66  | 7.38             | 84  | 5.58             | 43 | 5.04              |
| 57 | C73          | 50       | F    | 0.70             | 83  | 6.32             | 89  | 5.33             |    | N/A               |
| 58 | E100         | 59       | B    | 0.59             | 78  | 6.87             | 72  | 6.13             |    | N/A               |
| 59 | C5           | 30       | D    | 0.56             | 89  | 5.88             | 71  | 6.25             | 36 | 5.34              |
| 60 | E70          | 63       | D    | 0.52             | 32  | 9.14             | 28  | 8.46             |    | N/A               |
| 61 | C1           | 67       | D    | 0.31             | 62  | 7.61             | 67  | 6.56             |    | N/A               |
| 62 | E32          | 47       | C    | 0.29             | 74  | 7.08             | 73  | 6.10             | 49 | 4.76              |
| 63 | E78          | 44       | D    | 0.18             | 102 | 4.95             | 98  | 4.63             | 55 | 4.68              |
| 64 | E114         | 33       | E    | 0.14             | 49  | 8.29             | 100 | 4.42             | 48 | 4.81              |
| 65 | C49          | 51       | D    | 0.01             | 111 | 3.98             | 103 | 4.26             | 84 | 2.23              |
| 66 | C94          | 17       | D    | -0.06            | 53  | 8.11             | 17  | 9.25             |    | N/A               |
| 67 | C103         | 49       | D    | -0.15            | 64  | 7.46             |     | N/A              |    | N/A               |
| 68 | E13          | 35       | D    | -0.30            | 116 | 3.18             | 110 | 3.61             | 61 | 4.57              |
| 69 | E90          | 51       | A    | -0.42            | 97  | 5.47             | 88  | 5.37             |    | N/A               |
| 70 | E31          | 44       | A    | -0.47            | 88  | 5.94             | 80  | 5.70             |    | N/A               |
| 71 | E57          | 55       | A    | -0.57            | 44  | 8.47             | 44  | 7.56             | 24 | 5.81              |
| 72 | C33          | 48       | F    | -0.60            | 119 | 2.59             | 113 | 2.85             |    | N/A               |
| 73 | C91          | 51       | F    | -0.65            | 115 | 3.36             | 108 | 4.06             | 78 | 3.30              |
| 74 | C100         | 39       | D    | -0.79            | 70  | 7.27             | 64  | 6.69             |    | N/A               |
| 75 | E73          | 50       | A    | -0.79            | 68  | 7.29             | 65  | 6.68             | 47 | 4.84              |
| 76 | C41          | 66       | D    | -0.87            | 86  | 6.07             | 52  | 7.33             | 19 | 6.27              |
| 77 | C47          | 45       | D    | -0.95            | 114 | 3.48             | 112 | 3.33             | 69 | 3.88              |
| 78 | E89          | 37       | B    | -1.01            | 3   | 16.19            | 6   | 11.57            |    | N/A               |
| 79 | E104         | 60       | F    | -1.01            | 56  | 8.00             |     | N/A              |    | N/A               |
| 80 | C56          | 59       | A    | -1.14            | 39  | 8.63             | 25  | 8.50             | 37 | 5.32              |

POOLS WITH A  
BALANCED OR INCOME INVESTMENT OBJECTIVE  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #   | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|-----|--------------|----------|------|------------------|-----|------------------|-----|------------------|----|-------------------|
| 81  | E72          | 58       | B    | -1.22%           | 50  | 8.25%            | 45  | 7.55%            | 29 | 5.58%             |
| 82  | E2           | 62       | D    | -1.24            | 87  | 6.04             | 58  | 7.03             | 70 | 3.77              |
| 83  | E44          | 50       | F    | -1.24            | 79  | 6.86             | 85  | 5.47             | 74 | 3.71              |
| 84  | C29          | 57       | A    | -1.30            | 28  | 9.29             | 47  | 7.52             | 59 | 4.59              |
| 85  | E6           | 51       | B    | -1.31            | 20  | 10.15            | 35  | 8.07             | 22 | 6.01              |
| 86  | E103         | 61       | E    | -1.32            | 42  | 8.53             |     | N/A              |    | N/A               |
| 87  | E42          | 54       | E    | -1.32            | 25  | 9.61             | 37  | 7.99             | 25 | 5.73              |
| 88  | E85          | 44       | C    | -1.48            | 71  | 7.17             | 59  | 6.94             |    | N/A               |
| 89  | C39          | 45       | D    | -1.52            | 91  | 5.74             | 82  | 5.62             | 86 | 1.62              |
| 90  | C79          | 57       | D    | -1.62            | 106 | 4.44             | 99  | 4.44             | 72 | 3.74              |
| 91  | E37          | 48       | B    | -1.72            | 21  | 10.14            | 20  | 9.01             | 16 | 6.65              |
| 92  | C23          | 56       | E    | -1.75            | 1   | 20.03            | 4   | 13.51            | 23 | 5.97              |
| 93  | C68          | 60       | A    | -2.13            | 98  | 5.18             |     | N/A              |    | N/A               |
| 94  | E91          | 53       | F    | -2.31            | 67  | 7.33             | 68  | 6.52             | 30 | 5.55              |
| 95  | E67          | 65       | C    | -2.44            | 85  | 6.10             | 78  | 5.92             | 40 | 5.15              |
| 96  | C32          | 13       | E    | -2.66            | 90  | 5.82             | 8   | 11.06            | 2  | 11.06             |
| 97  | E92          | 61       | F    | -3.20            | 92  | 5.73             | 93  | 5.01             | 17 | 6.51              |
| 98  | C52          | 51       | F    | -3.24            | 94  | 5.54             | 77  | 5.98             | 41 | 5.07              |
| 99  | C78          | 42       | D    | -3.45            | 112 | 3.96             | 101 | 4.37             | 87 | 1.30              |
| 100 | E17          | 60       | B    | -3.65            | 99  | 5.15             | 94  | 4.99             | 38 | 5.18              |
| 101 | E53          | 67       | B    | -3.78            | 30  | 9.22             | 23  | 8.62             | 15 | 6.96              |
| 102 | C53          | 48       | F    | -3.78            | 76  | 7.02             | 49  | 7.41             |    | N/A               |
| 103 | E62          | 68       | E    | -4.08            | 51  | 8.24             | 41  | 7.67             | 42 | 5.06              |
| 104 | E14          | 66       | D    | -4.33            | 95  | 5.51             | 83  | 5.60             | 45 | 4.94              |
| 105 | C31          | 59       | B    | -4.51            | 17  | 10.65            | 60  | 6.78             |    | N/A               |
| 106 | C82          | 70       | B    | -4.91            | 35  | 8.81             | 29  | 8.39             | 80 | 3.09              |
| 107 | E77          | 55       | F    | -4.91            | 107 | 4.18             | 92  | 5.01             | 71 | 3.76              |
| 108 | E79          | 59       | D    | -5.26            | 57  | 7.81             | 43  | 7.57             | 56 | 4.63              |
| 109 | E108         | 59       | C    | -5.70            | 93  | 5.59             | 95  | 4.92             | 46 | 4.89              |
| 110 | E30          | 62       | A    | -5.93            | 7   | 12.89            | 18  | 9.12             | 50 | 4.76              |
| 111 | E97          | 64       | F    | -6.29            | 109 | 4.12             | 91  | 5.06             | 18 | 6.43              |
| 112 | E21          | 65       | A    | -7.24            | 48  | 8.33             | 31  | 8.32             | 67 | 3.95              |
| 113 | E76          | 65       | F    | -7.37            | 80  | 6.76             | 75  | 6.08             | 63 | 4.26              |
| 114 | E107         | 66       | F    | -7.37            | 108 | 4.17             | 97  | 4.76             | 44 | 4.95              |
| 115 | C84          | 29       | C    | -7.64            | 122 | -0.02            | 115 | 1.57             | 82 | 2.51              |
| 116 | E46          | 80       | A    | -7.81            | 63  | 7.48             | 46  | 7.54             | 64 | 4.20              |
| 117 | C4           | 81       | C    | -8.62            | 72  | 7.13             | 61  | 6.78             |    | N/A               |
| 118 | E56          | 59       | B    | -8.80            | 77  | 6.92             | 69  | 6.38             | 73 | 3.72              |
| 119 | E12          | 59       | F    | -8.97            | 10  | 11.59            | 16  | 9.52             |    | N/A               |
| 120 | C25          | 12       | A    | -9.03            | 43  | 8.52             | 30  | 8.38             | 14 | 7.46              |
| 121 | E102         | 72       | D    | -9.65            | 2   | 17.37            | 1   | 17.35            | 5  | 9.23              |
| 122 | E101         | 73       | D    | -10.85           | 61  | 7.73             | 53  | 7.28             |    | N/A               |
|     | D-JONES      |          |      | -11.70           |     | 4.88             |     | 3.45             |    | 3.70              |
|     | SP500        |          |      | -11.76           |     | 7.68             |     | 7.19             |    | 4.79              |

POOLS WITH A  
BALANCED OR INCOME INVESTMENT OBJECTIVE  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #   | 3 YEAR<br>RETURN | #   | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|-----|------------------|-----|------------------|----|-------------------|
| 123     | E43          | 72       | C    | -11.89%          | 60  | 7.74%            | 14  | 9.74%            | 12 | 7.63%             |
|         | SP-IND       |          |      | -12.64           |     | 7.63             |     | 7.21             |    | 4.49              |
|         | COM-FDEQ     | 95       | A    | -13.25           |     | 11.31            |     | 12.72            |    | 5.35              |
| 124     | E34          | 70       | A    | -13.35           | 8   | 11.70            | 10  | 10.50            | 57 | 4.61              |
| 125     | E26          | 74       | D    | -14.05           | 33  | 9.12             | 13  | 10.08            | 52 | 4.71              |
| 126     | C40          | 51       | E    | -14.61           | 19  | 10.25            | 22  | 8.65             | 3  | 10.32             |
| 127     | E112         | 72       | C    | -14.72           |     | N/A              |     | N/A              |    | N/A               |
| 128     | E94          | 73       | D    | -15.35           | 5   | 13.93            | 5   | 12.92            |    | N/A               |
| 129     | E15          | 49       | C    | -15.61           | 84  | 6.28             | 86  | 5.46             | 77 | 3.31              |
| 130     | C51          | 59       | F    | -16.53           | 120 | 2.30             | 105 | 4.15             |    | N/A               |
|         |              |          |      |                  |     |                  |     |                  |    |                   |
| AVERAGE |              | 130      |      | -0.10%           | 123 | 7.62%            | 116 | 7.07%            | 87 | 5.31%             |



INVESTMENT POOLS OVER \$50 MILLION  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 1  | C59          | 29       | B    | 15.22%           | 31 | 9.17%            |    | N/A%             |    | N/A%              |
| 2  | C7           | 8        | A    | 12.90            | 5  | 11.85            | 18 | 9.10             | 43 | 3.61              |
| 3  | C60          | 57       | B    | 12.38            | 11 | 11.15            | 8  | 10.47            | 5  | 7.50              |
|    | COM-FDBD     | 0        | A    | 10.98            |    | 0.10             |    | 2.30             |    | N/A               |
|    | LEH-KUHN     |          |      | 9.04             |    | -1.18            |    | 0.64             |    | N/A               |
|    | SALOMON      |          |      | 7.43             |    | -3.85            |    | -1.23            |    | 2.76              |
| 4  | C99          | 72       | B    | 7.32             | 8  | 11.71            | 1  | 14.32            | 1  | 21.63             |
| 5  | E110         | 39       | A    | 5.16             | 43 | 8.02             | 31 | 8.32             |    | N/A               |
| 6  | C22          | 41       | A    | 5.14             | 14 | 10.99            | 15 | 9.51             | 21 | 5.31              |
| 7  | C61          | 39       | A    | 4.63             | 57 | 5.10             |    | N/A              |    | N/A               |
| 8  | C9           | 51       | A    | 3.81             | 38 | 8.44             | 44 | 7.18             | 18 | 5.49              |
| 9  | E28          | 17       | A    | 3.28             | 59 | 4.99             | 51 | 6.33             | 36 | 4.06              |
| 10 | C20          | 55       | B    | 2.79             | 33 | 8.68             | 35 | 8.05             | 15 | 5.73              |
| 11 | C54          | 37       | A    | 2.56             | 18 | 10.74            | 2  | 13.70            | 2  | 8.15              |
| 12 | E93          | 57       | B    | 2.35             | 2  | 13.19            | 6  | 10.57            |    | N/A               |
| 13 | E96          | 49       | B    | 1.72             | 28 | 9.24             | 37 | 7.85             |    | N/A               |
| 14 | C15          | 54       | A    | 1.36             | 6  | 11.80            | 10 | 10.20            | 27 | 4.92              |
| 15 | E27          | 54       | B    | 1.10             | 15 | 10.89            | 23 | 8.54             | 32 | 4.59              |
| 16 | C72          | 48       | A    | 1.09             | 46 | 7.45             | 43 | 7.22             | 3  | 7.90              |
| 17 | C55          | 77       | A    | 1.05             | 17 | 10.81            | 14 | 9.59             | 4  | 7.76              |
| 18 | E8           | 54       | A    | 0.91             | 7  | 11.74            | 13 | 9.94             | 17 | 5.50              |
| 19 | E100         | 59       | B    | 0.59             | 52 | 6.87             | 52 | 6.13             |    | N/A               |
| 20 | E29          | 63       | A    | 0.53             | 23 | 9.95             | 27 | 8.41             | 35 | 4.08              |
| 21 | E1           | 55       | A    | -0.08            | 12 | 11.12            | 16 | 9.29             | 44 | 3.56              |
| 22 | E90          | 51       | A    | -0.42            | 54 | 5.47             | 55 | 5.37             |    | N/A               |
| 23 | E31          | 44       | A    | -0.47            | 53 | 5.94             | 53 | 5.70             |    | N/A               |
| 24 | E18          | 68       | A    | -0.51            | 47 | 7.43             | 45 | 7.13             | 38 | 4.05              |
| 25 | E57          | 55       | A    | -0.57            | 37 | 8.47             | 38 | 7.56             | 13 | 5.81              |
| 26 | E73          | 50       | A    | -0.79            | 49 | 7.29             | 49 | 6.68             | 28 | 4.84              |
| 27 | C3           | 57       | B    | -0.86            | 60 | 4.97             | 57 | 4.29             | 37 | 4.06              |
| 28 | E89          | 37       | B    | -1.01            | 1  | 16.19            | 4  | 11.57            |    | N/A               |
| 29 | C56          | 59       | A    | -1.14            | 34 | 8.63             | 24 | 8.50             | 20 | 5.32              |
| 30 | E47          | 60       | B    | -1.22            | 50 | 7.06             |    | N/A              |    | N/A               |
| 31 | E72          | 58       | B    | -1.22            | 41 | 8.25             | 39 | 7.55             | 16 | 5.58              |
| 32 | C29          | 57       | A    | -1.30            | 27 | 9.29             | 41 | 7.52             | 31 | 4.59              |
| 33 | E6           | 51       | B    | -1.31            | 20 | 10.15            | 34 | 8.07             | 12 | 6.01              |
| 34 | C8           | 57       | B    | -1.46            | 26 | 9.42             | 36 | 7.94             |    | N/A               |
| 35 | C96          | 44       | A    | -1.52            | 61 | 4.71             | 48 | 6.77             |    | N/A               |
| 36 | E37          | 48       | B    | -1.72            | 21 | 10.14            | 20 | 9.01             | 9  | 6.65              |
| 37 | C68          | 60       | A    | -2.13            | 55 | 5.18             |    | N/A              |    | N/A               |
| 38 | E69          | 64       | B    | -3.00            | 58 | 5.01             | 54 | 5.54             | 46 | 0.68              |
| 39 | E63          | 59       | A    | -3.00            | 35 | 8.52             | 25 | 8.48             | 40 | 3.76              |
| 40 | E17          | 60       | B    | -3.65            | 56 | 5.15             | 56 | 4.99             | 23 | 5.18              |
| 41 | E53          | 67       | B    | -3.78            | 30 | 9.22             | 22 | 8.62             | 8  | 6.96              |
| 42 | C2           | 50       | B    | -4.38            | 48 | 7.42             | 46 | 7.10             | 26 | 5.01              |
| 43 | E36          | 60       | A    | -4.47            | 10 | 11.28            | 12 | 10.01            | 19 | 5.34              |
| 44 | C31          | 59       | B    | -4.51            | 19 | 10.65            | 47 | 6.78             |    | N/A               |

INVESTMENT POOLS OVER \$50 MILLION  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 45      | C82          | 70       | B    | -4.91%           | 32 | 8.81%            | 28 | 8.39%            | 45 | 3.09%             |
| 46      | C42          | 70       | B    | -5.50            | 29 | 9.24             | 33 | 8.11             | 42 | 3.67              |
| 47      | E40          | 67       | A    | -5.57            | 16 | 10.87            | 26 | 8.42             | 25 | 5.06              |
| 48      | E45          | 56       | A    | -5.69            | 24 | 9.72             | 19 | 9.09             | 10 | 6.63              |
| 49      | E30          | 62       | A    | -5.93            | 4  | 12.89            | 17 | 9.12             | 29 | 4.76              |
| 50      | E11          | 17       | A    | -6.00            | 13 | 11.12            | 11 | 10.16            | 14 | 5.78              |
| 51      | E21          | 65       | A    | -7.24            | 39 | 8.33             | 30 | 8.32             | 39 | 3.95              |
| 52      | E38          | 66       | A    | -7.70            | 42 | 8.18             | 42 | 7.50             | 11 | 6.15              |
| 53      | E46          | 80       | A    | -7.81            | 45 | 7.48             | 40 | 7.54             | 34 | 4.20              |
| 54      | E33          | 75       | A    | -7.96            | 40 | 8.25             | 21 | 8.79             | 33 | 4.25              |
| 55      | E56          | 59       | B    | -8.80            | 51 | 6.92             | 50 | 6.38             | 41 | 3.72              |
| 56      | C25          | 12       | A    | -9.03            | 36 | 8.52             | 29 | 8.38             | 7  | 7.46              |
| 57      | E19          | 71       | B    | -9.91            | 25 | 9.66             | 9  | 10.46            | 22 | 5.27              |
| 58      | C48          | 60       | B    | -10.02           | 22 | 10.12            | 5  | 10.66            |    | N/A               |
|         | D-JONES      |          |      | -11.70           |    | 4.88             |    | 3.45             |    | 3.70              |
|         | SP500        |          |      | -11.76           |    | 7.68             |    | 7.19             |    | 4.79              |
| 59      | C77          | 89       | A    | -12.40           | 44 | 7.78             | 32 | 8.26             | 6  | 7.46              |
|         | SP-IND       |          |      | -12.64           |    | 7.63             |    | 7.21             |    | 4.49              |
|         | COM-FDEQ     | 95       | A    | -13.25           |    | 11.31            |    | 12.72            |    | 5.35              |
| 60      | E5           | 76       | B    | -13.28           | 3  | 13.01            | 3  | 12.37            | 24 | 5.06              |
| 61      | E34          | 70       | A    | -13.35           | 9  | 11.70            | 7  | 10.50            | 30 | 4.61              |
| AVERAGE |              |          |      | -1.63%           | 61 | 9.05%            | 57 | 8.46%            | 46 | 5.54%             |

INVESTMENT POOLS \$10-\$50 MILLION  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 1  | C69          | 0        | D    | 15.69%           | 32 | 9.29%            | 40 | 7.66%            |    | N/A%              |
| 2  | C6           | 14       | D    | 13.16            | 19 | 11.06            | 28 | 8.69             | 28 | 5.16              |
| 3  | C11          | 72       | C    | 12.86            | 1  | 17.72            |    | N/A              |    | N/A               |
| 4  | C85          | 31       | D    | 11.99            | 43 | 8.60             | 30 | 8.47             | 21 | 5.72              |
|    | COM-FDBD     | 0        | A    | 10.98            |    | 0.10             |    | 2.30             |    | N/A               |
| 5  | C74          | 12       | D    | 10.38            | 26 | 10.06            | 13 | 11.18            | 5  | 9.27              |
| 6  | C81          | 72       | C    | 9.75             | 16 | 11.64            |    | N/A              |    | N/A               |
| 7  | E58          | 43       | D    | 9.60             | 64 | 7.09             | 68 | 6.03             | 18 | 6.15              |
|    | LEH-KUHN     |          |      | 9.04             |    | -1.18            |    | 0.64             |    | N/A               |
| 8  | E16          | 57       | D    | 8.54             | 3  | 16.89            | 6  | 12.80            | 12 | 7.55              |
| 9  | E49          | 52       | C    | 8.16             | 22 | 10.32            | 16 | 10.85            | 40 | 4.61              |
| 10 | E68          | 56       | C    | 8.02             | 29 | 9.59             | 29 | 8.48             | 47 | 4.20              |
| 11 | C90          | 14       | C    | 7.98             |    | N/A              |    | N/A              |    | N/A               |
|    | SALOMON      |          |      | 7.43             |    | -3.85            |    | -1.23            |    | 2.76              |
| 12 | C65          | 51       | C    | 7.16             | 10 | 13.80            | 15 | 10.96            | 7  | 8.45              |
| 13 | E80          | 25       | C    | 5.57             | 28 | 9.61             | 18 | 10.14            | 24 | 5.49              |
| 14 | C34          | 57       | C    | 5.54             | 23 | 10.31            | 23 | 9.69             | 52 | 3.59              |
| 15 | C86          | 38       | D    | 5.31             | 38 | 8.79             | 35 | 8.22             | 9  | 7.66              |
| 16 | C70          | 55       | D    | 5.11             | 27 | 10.04            | 37 | 8.06             | 17 | 6.19              |
| 17 | C38          | 33       | C    | 5.04             | 41 | 8.61             | 26 | 9.06             | 8  | 8.04              |
| 18 | C83          | 33       | D    | 4.85             | 48 | 8.04             | 34 | 8.24             | 44 | 4.38              |
| 19 | C89          | 24       | D    | 4.70             | 66 | 7.04             | 57 | 6.63             |    | N/A               |
| 20 | C35          | 51       | C    | 4.54             | 7  | 13.95            | 3  | 13.85            | 2  | 10.65             |
| 21 | C88          | 32       | D    | 4.43             | 30 | 9.53             | 36 | 8.14             | 23 | 5.54              |
| 22 | E60          | 51       | D    | 4.27             | 24 | 10.26            | 42 | 7.48             | 41 | 4.59              |
| 23 | E35          | 59       | C    | 3.80             | 45 | 8.36             | 45 | 7.40             | 58 | 3.12              |
| 24 | E51          | 47       | C    | 3.10             | 21 | 10.44            | 17 | 10.69            | 14 | 6.84              |
| 25 | E65          | 53       | C    | 3.04             | 20 | 10.94            | 27 | 8.99             | 25 | 5.45              |
| 26 | E50          | 29       | C    | 2.87             | 6  | 14.05            | 12 | 11.48            | 61 | 2.77              |
| 27 | E22          | 38       | D    | 2.82             | 93 | 3.53             | 85 | 3.79             | 36 | 4.70              |
| 28 | E20          | 46       | C    | 2.68             | 12 | 13.18            | 21 | 9.99             | 13 | 7.39              |
| 29 | C62          | 70       | D    | 2.58             | 96 | 2.29             | 87 | 3.46             |    | N/A               |
| 30 | C19          | 49       | D    | 2.46             | 89 | 4.53             | 83 | 4.34             |    | N/A               |
| 31 | C21          | 39       | C    | 2.23             | 40 | 8.67             | 71 | 5.76             | 62 | 2.70              |
| 32 | C46          | 33       | D    | 2.14             | 47 | 8.05             | 54 | 6.72             | 34 | 4.72              |
| 33 | C13          | 61       | D    | 1.99             | 4  | 14.66            | 2  | 14.59            | 1  | 14.68             |
| 34 | E59          | 44       | D    | 1.65             | 39 | 8.78             | 44 | 7.41             | 38 | 4.68              |
| 35 | C18          | 40       | D    | 1.38             | 18 | 11.21            | 20 | 10.04            | 4  | 9.53              |
| 36 | C101         | 50       | D    | 1.29             |    | N/A              |    | N/A              |    | N/A               |
| 37 | C58          | 79       | D    | 1.07             | 37 | 8.81             | 39 | 7.82             | 53 | 3.45              |
| 38 | C17          | 69       | C    | 0.93             | 57 | 7.38             | 74 | 5.58             | 30 | 5.04              |
| 39 | C5           | 30       | D    | 0.56             | 81 | 5.88             | 64 | 6.25             | 26 | 5.34              |
| 40 | E70          | 63       | D    | 0.52             | 34 | 9.14             | 31 | 8.46             |    | N/A               |
| 41 | C1           | 67       | D    | 0.31             | 53 | 7.61             | 59 | 6.56             |    | N/A               |
| 42 | E32          | 47       | C    | 0.29             | 65 | 7.08             | 67 | 6.10             | 33 | 4.76              |
| 43 | E78          | 44       | D    | 0.18             | 87 | 4.95             | 80 | 4.63             | 37 | 4.68              |

INVESTMENT POOLS \$10-\$50 MILLION  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 44 | E74          | 59       | D    | 0.05%            | 75 | 6.15 %           |    | N/A %            |    | N/A %             |
| 45 | C49          | 51       | D    | 0.01             | 91 | 3.98             | 84 | 4.26             | 66 | 2.23              |
| 46 | C94          | 17       | D    | -0.06            | 46 | 8.11             | 25 | 9.25             |    | N/A               |
| 47 | C103         | 49       | D    | -0.15            | 55 | 7.46             |    | N/A              |    | N/A               |
| 48 | E13          | 35       | D    | -0.30            | 95 | 3.18             | 86 | 3.61             | 42 | 4.57              |
| 49 | E61          | 64       | D    | -0.33            | 44 | 8.40             | 56 | 6.66             |    | N/A               |
| 50 | C100         | 39       | D    | -0.79            | 59 | 7.27             | 55 | 6.69             |    | N/A               |
| 51 | C57          | 46       | C    | -0.81            | 25 | 10.20            | 38 | 7.99             | 67 | 1.81              |
| 52 | C41          | 66       | D    | -0.87            | 77 | 6.07             | 49 | 7.33             | 16 | 6.27              |
| 53 | C47          | 45       | D    | -0.95            | 94 | 3.48             | 88 | 3.33             | 48 | 3.88              |
| 54 | E39          | 52       | D    | -1.20            | 86 | 5.51             | 77 | 5.39             | 54 | 3.41              |
| 55 | E2           | 62       | D    | -1.24            | 78 | 6.04             | 51 | 7.03             | 49 | 3.77              |
| 56 | E66          | 55       | C    | -1.24            | 49 | 8.00             | 43 | 7.42             |    | N/A               |
| 57 | C16          | 57       | C    | -1.38            | 79 | 5.94             | 78 | 5.17             | 55 | 3.32              |
| 58 | E85          | 44       | C    | -1.48            | 61 | 7.17             | 52 | 6.94             |    | N/A               |
| 59 | C39          | 45       | D    | -1.52            | 83 | 5.74             | 72 | 5.62             | 68 | 1.62              |
| 60 | C79          | 57       | D    | -1.62            | 90 | 4.44             | 81 | 4.44             | 50 | 3.74              |
| 61 | E95          | 50       | C    | -2.01            | 69 | 6.70             | 66 | 6.11             | 57 | 3.30              |
| 62 | E24          | 62       | D    | -2.27            | 71 | 6.59             | 61 | 6.49             | 19 | 5.78              |
| 63 | E67          | 65       | C    | -2.44            | 76 | 6.10             | 69 | 5.92             | 29 | 5.15              |
| 64 | E99          | 53       | D    | -2.45            | 14 | 12.47            | 7  | 12.45            |    | N/A               |
| 65 | C71          | 27       | D    | -3.39            | 73 | 6.48             | 46 | 7.37             |    | N/A               |
| 66 | C78          | 42       | D    | -3.45            | 92 | 3.96             | 82 | 4.37             | 69 | 1.30              |
| 67 | E55          | 63       | C    | -3.48            | 68 | 6.73             |    | N/A              |    | N/A               |
| 68 | C14          | 58       | C    | -3.74            | 5  | 14.54            | 9  | 12.31            |    | N/A               |
| 69 | C45          | 62       | D    | -3.83            | 54 | 7.49             |    | N/A              |    | N/A               |
| 70 | C76          | 52       | D    | -4.01            | 31 | 9.51             | 48 | 7.35             | 45 | 4.32              |
| 71 | E14          | 66       | D    | -4.33            | 85 | 5.51             | 73 | 5.60             | 31 | 4.94              |
| 72 | E10          | 67       | D    | -4.40            | 70 | 6.69             | 63 | 6.31             | 64 | 2.48              |
| 73 | E81          | 47       | D    | -4.72            | 36 | 8.87             | 60 | 6.54             | 60 | 2.99              |
| 74 | E71          | 57       | C    | -5.13            | 82 | 5.84             | 75 | 5.58             | 43 | 4.55              |
| 75 | E79          | 59       | D    | -5.26            | 50 | 7.81             | 41 | 7.57             | 39 | 4.63              |
| 76 | C28          | 76       | C    | -5.62            | 17 | 11.29            | 14 | 11.06            |    | N/A               |
| 77 | E108         | 59       | C    | -5.70            | 84 | 5.59             | 79 | 4.92             | 32 | 4.89              |
| 78 | C66          | 59       | D    | -6.28            | 9  | 13.82            | 11 | 11.68            |    | N/A               |
| 79 | E4           | 67       | D    | -6.59            | 80 | 5.89             | 58 | 6.63             | 59 | 3.02              |
| 80 | E86          | 64       | D    | -6.86            | 72 | 6.51             |    | N/A              |    | N/A               |
| 81 | C98          | 62       | D    | -7.28            | 58 | 7.38             | 24 | 9.60             | 3  | 9.97              |
| 82 | C84          | 29       | C    | -7.64            | 97 | -0.02            | 89 | 1.57             | 63 | 2.51              |
| 83 | C87          | 53       | D    | -7.96            | 33 | 9.21             | 33 | 8.27             | 65 | 2.43              |
| 84 | C4           | 81       | C    | -8.62            | 62 | 7.13             | 53 | 6.78             |    | N/A               |
| 85 | C102         | 71       | D    | -8.68            | 60 | 7.20             |    | N/A              |    | N/A               |

INVESTMENT POOLS \$10-\$50 MILLION  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #      | 3 YEAR<br>RETURN | #     | 5 YEAR<br>RETURN | #     | 10 YEAR<br>RETURN |       |
|---------|--------------|----------|------|------------------|--------|------------------|-------|------------------|-------|-------------------|-------|
| 86      | E102         | 72       | D    | -9.65%           | 2      | 17.37%           | 1     | 17.35%           | 6     | 9.23%             |       |
| 87      | C93          | 77       | C    | -9.82            | 42     | 8.60             | 32    | 8.34             | 11    | 7.56              |       |
| 88      | E3           | 68       | D    | -10.64           | 88     | 4.80             | 70    | 5.81             | 46    | 4.23              |       |
| 89      | E101         | 73       | D    | -10.85           | 52     | 7.73             | 50    | 7.28             |       | N/A               |       |
| 90      | E52          | 77       | D    | -10.95           | 63     | 7.13             | 65    | 6.18             | 51    | 3.74              |       |
|         | D-JONES      |          |      | -11.70           |        | 4.88             |       | 3.45             |       | 3.70              |       |
|         | SP500        |          |      | -11.76           |        | 7.68             |       | 7.19             |       | 4.79              |       |
| 91      | E54          | 71       | C    | -11.85           | 13     | 13.01            | 4     | 13.24            | 22    | 5.66              |       |
| 92      | E43          | 72       | C    | -11.89           | 51     | 7.74             | 22    | 9.74             | 10    | 7.63              |       |
|         | SP-IND       |          |      | -12.64           |        | 7.63             |       | 7.21             |       | 4.49              |       |
|         | COM-FDEQ     | 95       | A    | -13.25           |        | 11.31            |       | 12.72            |       | 5.35              |       |
| 93      | C63          | 77       | C    | -13.49           | 15     | 11.91            | 8     | 12.39            | 27    | 5.24              |       |
| 94      | E25          | 80       | D    | -13.52           | 11     | 13.25            | 10    | 12.09            | 20    | 5.78              |       |
| 95      | C24          | 80       | D    | -13.79           | 67     | 6.93             | 47    | 7.36             |       | N/A               |       |
| 96      | E26          | 74       | D    | -14.05           | 35     | 9.12             | 19    | 10.08            | 35    | 4.71              |       |
| 97      | E75          | 74       | C    | -14.53           | 56     | 7.44             | 62    | 6.46             | 15    | 6.69              |       |
| 98      | E112         | 72       | C    | -14.72           |        | N/A              |       | N/A              |       | N/A               |       |
| 99      | E94          | 73       | D    | -15.35           | 8      | 13.93            | 5     | 12.92            |       | N/A               |       |
| 100     | E15          | 49       | C    | -15.61           | 74     | 6.28             | 76    | 5.46             | 56    | 3.31              |       |
| AVERAGE |              |          |      | 100              | -1.20% | 97               | 8.49% | 89               | 7.92% | 69                | 5.18% |

INVESTMENT POOLS UNDER \$10 MILLION  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1983

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 1  | E7           | 48       | F    | 14.64%           | 6  | 10.83%           | 11 | 8.44%            | 33 | 2.31%             |
|    | COM-FDBD     | 0        | A    | 10.98            |    | 0.10             |    | 2.30             |    | N/A               |
| 2  | C30          | 43       | E    | 10.70            | 5  | 10.96            | 10 | 8.49             | 10 | 5.60              |
| 3  | E87          | 5        | F    | 9.79             | 49 | 2.59             | 47 | 2.74             | 22 | 4.12              |
| 4  | C12          | 88       | F    | 9.51             | 14 | 8.46             | 24 | 6.09             |    | N/A               |
|    | LEH-KUHN     |          |      | 9.04             |    | -1.18            |    | 0.64             |    | N/A               |
| 5  | E106         | 29       | E    | 8.77             |    | N/A              |    | N/A              |    | N/A               |
| 6  | C67          | 27       | E    | 8.42             | 21 | 7.74             | 18 | 7.08             | 19 | 4.52              |
| 7  | C37          | 24       | F    | 7.77             | 39 | 4.58             | 40 | 4.25             |    | N/A               |
|    | SALOMON      |          |      | 7.43             |    | -3.85            |    | -1.23            |    | 2.76              |
| 8  | E111         | 31       | E    | 6.96             |    | N/A              |    | N/A              |    | N/A               |
| 9  | E82          | 38       | F    | 6.43             | 20 | 7.79             | 20 | 6.72             | 9  | 5.66              |
| 10 | E109         | 24       | F    | 5.88             | 32 | 6.35             | 32 | 5.12             | 29 | 3.52              |
| 11 | C10          | 52       | F    | 4.98             | 47 | 2.95             | 38 | 4.58             |    | N/A               |
| 12 | E83          | 50       | F    | 4.32             | 31 | 6.44             | 27 | 5.70             | 27 | 3.67              |
| 13 | C92          | 23       | E    | 4.30             | 27 | 7.29             | 17 | 7.16             | 24 | 3.90              |
| 14 | E84          | 35       | F    | 3.80             | 17 | -8.15            | 14 | 7.85             |    | N/A               |
| 15 | E113         | 65       | F    | 3.62             |    | N/A              |    | N/A              |    | N/A               |
| 16 | C64          | 20       | E    | 3.44             | 33 | 6.33             | 29 | 5.39             | 12 | 5.40              |
| 17 | C50          | 48       | F    | 3.02             | 24 | 7.50             | 19 | 6.87             | 18 | 4.77              |
| 18 | E88          | 14       | F    | 2.68             | 52 | -1.36            | 49 | 0.53             | 28 | 3.66              |
| 19 | E23          | 44       | F    | 2.59             | 46 | 3.14             | 42 | 4.09             | 35 | 2.09              |
| 20 | E115         | 66       | E    | 2.53             |    | N/A              |    | N/A              |    | N/A               |
| 21 | E64          | 57       | E    | 2.30             | 8  | 10.39            | 5  | 9.80             | 34 | 2.29              |
| 22 | C44          | 57       | F    | 2.12             | 3  | 13.29            | 2  | 12.66            | 8  | 5.69              |
| 23 | C36          | 41       | E    | 1.94             | 38 | 5.51             | 31 | 5.19             |    | N/A               |
| 24 | E9           | 32       | E    | 1.83             | 44 | 4.03             | 36 | 4.82             |    | N/A               |
| 25 | E41          | 40       | E    | 1.77             | 40 | 4.54             | 43 | 4.07             | 32 | 2.34              |
| 26 | C95          | 43       | E    | 1.40             | 12 | 9.04             | 13 | 7.89             | 13 | 5.38              |
| 27 | C75          | 56       | E    | 1.25             | 26 | 7.33             | 21 | 6.61             | 20 | 4.46              |
| 28 | E98          | 61       | F    | 0.98             | 7  | 10.52            | 8  | 9.10             | 6  | 5.95              |
| 29 | C73          | 50       | F    | 0.70             | 34 | 6.32             | 30 | 5.33             |    | N/A               |
| 30 | C43          | 67       | F    | 0.67             | 2  | 16.03            | 3  | 11.48            |    | N/A               |
| 31 | E48          | 52       | E    | 0.18             | 23 | 7.68             | 7  | 9.36             |    | N/A               |
| 32 | E114         | 33       | E    | 0.14             | 15 | 8.29             | 39 | 4.42             | 17 | 4.81              |
| 33 | C80          | 60       | F    | -0.40            | 19 | 7.85             | 23 | 6.23             | 30 | 3.46              |
| 34 | C33          | 48       | F    | -0.60            | 48 | 2.59             | 46 | 2.85             |    | N/A               |
| 35 | C91          | 51       | F    | -0.65            | 45 | 3.36             | 44 | 4.06             | 31 | 3.30              |
| 36 | E104         | 60       | F    | -1.01            | 18 | 8.00             |    | N/A              |    | N/A               |
| 37 | E44          | 50       | F    | -1.24            | 29 | 6.86             | 28 | 5.47             | 26 | 3.71              |
| 38 | E103         | 61       | E    | -1.32            | 13 | 8.53             |    | N/A              |    | N/A               |
| 39 | E42          | 54       | E    | -1.32            | 11 | 9.61             | 12 | 7.99             | 7  | 5.73              |
| 40 | C23          | 56       | E    | -1.75            | 1  | 20.03            | 1  | 13.51            | 5  | 5.97              |



INVESTMENT POOLS UNDER \$10 MILLION  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>X* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 41      | E91          | 53       | F    | -2.31%           | 25 | 7.33%            | 22 | 6.52%            | 11 | 5.55%             |
| 42      | C97          | 44       | E    | -2.40            | 22 | 7.69             | 48 | 1.12             | 23 | 3.91              |
| 43      | C32          | 13       | E    | -2.66            | 35 | 5.82             | 4  | 11.06            | 1  | 11.06             |
| 44      | E92          | 61       | F    | -3.20            | 36 | 5.73             | 35 | 5.01             | 3  | 6.51              |
| 45      | C52          | 51       | F    | -3.24            | 37 | 5.54             | 26 | 5.98             | 14 | 5.07              |
| 46      | C53          | 48       | F    | -3.78            | 28 | 7.02             | 16 | 7.41             |    | N/A               |
| 47      | E62          | 68       | E    | -4.08            | 16 | 8.24             | 15 | 7.67             | 15 | 5.06              |
| 48      | E105         | 65       | F    | -4.63            | 10 | 10.00            |    | N/A              |    | N/A               |
| 49      | E77          | 55       | F    | -4.91            | 41 | 4.18             | 34 | 5.01             | 25 | 3.76              |
| 50      | E97          | 64       | F    | -6.29            | 43 | 4.12             | 33 | 5.06             | 4  | 6.43              |
| 51      | E76          | 65       | F    | -7.37            | 30 | 6.76             | 25 | 6.08             | 21 | 4.26              |
| 52      | E107         | 66       | F    | -7.37            | 42 | 4.17             | 37 | 4.76             | 16 | 4.95              |
| 53      | C26          | 47       | E    | -8.81            |    | N/A              |    | N/A              |    | N/A               |
| 54      | E12          | 59       | F    | -8.97            | 4  | 11.59            | 6  | 9.52             |    | N/A               |
|         | D-JONES      |          |      | -11.70           |    | 4.88             |    | 3.45             |    | 3.70              |
|         | SP500        |          |      | -11.76           |    | 7.68             |    | 7.19             |    | 4.79              |
|         | SP-IND       |          |      | -12.64           |    | 7.63             |    | 7.21             |    | 4.49              |
|         | COM-FDEQ     | 95       | A    | -13.25           |    | 11.31            |    | 12.72            |    | 5.35              |
| 55      | C27          | 79       | E    | -13.81           | 51 | -1.03            | 45 | 3.97             |    | N/A               |
| 56      | C40          | 51       | E    | -14.61           | 9  | 10.25            | 9  | 8.65             | 2  | 10.32             |
| 57      | C51          | 59       | F    | -16.53           | 50 | 2.30             | 41 | 4.15             |    | N/A               |
| AVERAGE |              |          |      | 0.28%            | 52 | 7.10%            | 49 | 6.41%            | 35 | 4.83%             |

ENDOWMENT POOLS 65% OR MORE IN EQUITY  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 1  | C11          | 72       | C    | 12.86 %          | 1  | 17.72 %          |    | N/A %            |    | N/A %             |
|    | COM-FDBD     | 0        | A    | 10.98            |    | 0.10             |    | 2.30             |    | N/A               |
| 2  | C81          | 72       | C    | 9.75             | 11 | 11.64            |    | N/A              |    | N/A               |
| 3  | C12          | 88       | F    | 9.51             | 23 | 8.46             | 37 | 6.09             |    | N/A               |
|    | LEH-KUHN     |          |      | 9.04             |    | -1.18            |    | 0.64             |    | N/A               |
|    | SALOMON      |          |      | 7.43             |    | 13.85            |    | -1.23            |    | 2.76              |
| 4  | C99          | 72       | B    | 7.32             | 9  | 11.71            | 2  | 14.32            | 1  | 21.63             |
| 5  | E113         | 65       | F    | 3.62             |    | N/A              |    | N/A              |    | N/A               |
| 6  | C62          | 70       | D    | 2.58             | 48 | 2.29             | 45 | 3.46             |    | N/A               |
| 7  | E115         | 66       | E    | 2.53             |    | N/A              |    | N/A              |    | N/A               |
| 8  | C58          | 79       | D    | 1.07             | 20 | 8.81             | 23 | 7.82             | 32 | 3.45              |
| 9  | C55          | 77       | A    | 1.05             | 14 | 10.81            | 14 | 9.59             | 3  | 7.76              |
| 10 | C17          | 69       | C    | 0.93             | 35 | 7.38             | 42 | 5.58             | 19 | 5.04              |
| 11 | C43          | 67       | F    | 0.67             | 3  | 16.03            | 8  | 11.48            |    | N/A               |
| 12 | C1           | 67       | D    | 0.31             | 31 | 7.61             | 33 | 6.56             |    | N/A               |
| 13 | E18          | 68       | A    | -0.51            | 34 | 7.43             | 30 | 7.13             | 28 | 4.05              |
| 14 | C41          | 66       | D    | -0.87            | 43 | 6.07             | 28 | 7.33             | 9  | 6.27              |
| 15 | E67          | 65       | C    | -2.44            | 42 | 6.10             | 39 | 5.92             | 15 | 5.15              |
| 16 | E53          | 67       | B    | -3.78            | 18 | 9.22             | 16 | 8.62             | 7  | 6.96              |
| 17 | E62          | 68       | E    | -4.08            | 26 | 8.24             | 24 | 7.67             | 17 | 5.06              |
| 18 | E14          | 66       | D    | -4.33            | 45 | 5.51             | 41 | 5.60             | 21 | 4.94              |
| 19 | E10          | 67       | D    | -4.40            | 41 | 6.69             | 35 | 6.31             | 35 | 2.48              |
| 20 | E105         | 65       | F    | -4.63            | 15 | 10.00            |    | N/A              |    | N/A               |
| 21 | C82          | 70       | B    | -4.91            | 21 | 8.81             | 18 | 8.39             | 33 | 3.09              |
| 22 | C42          | 70       | B    | -5.50            | 17 | 9.24             | 22 | 8.11             | 31 | 3.67              |
| 23 | C40          | 67       | A    | -5.57            | 13 | 10.87            | 17 | 8.42             | 18 | 5.06              |
| 24 | C28          | 76       | C    | -5.62            | 12 | 11.29            | 9  | 11.06            |    | N/A               |
| 25 | E4           | 67       | D    | -6.59            | 44 | 5.89             | 32 | 6.63             | 34 | 3.02              |
| 26 | E21          | 65       | A    | -7.24            | 24 | 8.33             | 20 | 8.32             | 29 | 3.95              |
| 27 | E107         | 66       | F    | -7.37            | 47 | 4.17             | 43 | 4.76             | 20 | 4.95              |
| 28 | E76          | 65       | F    | -7.37            | 40 | 6.76             | 38 | 6.08             | 24 | 4.26              |
| 29 | E38          | 66       | A    | -7.70            | 27 | 8.18             | 26 | 7.50             | 10 | 6.15              |
| 30 | E46          | 80       | A    | -7.81            | 32 | 7.48             | 25 | 7.54             | 27 | 4.20              |
| 31 | E33          | 75       | A    | -7.96            | 25 | 8.25             | 15 | 8.79             | 25 | 4.25              |
| 32 | C4           | 81       | C    | -8.62            | 38 | 7.13             | 31 | 6.78             |    | N/A               |
| 33 | C102         | 71       | D    | -8.68            | 36 | 7.20             |    | N/A              |    | N/A               |
| 34 | E102         | 72       | D    | -9.65            | 2  | 17.37            | 1  | 17.35            | 2  | 9.23              |
| 35 | C93          | 77       | C    | -9.82            | 22 | 8.60             | 19 | 8.34             | 5  | 7.56              |
| 36 | E19          | 71       | B    | -9.91            | 16 | 9.66             | 11 | 10.46            | 13 | 5.27              |
| 37 | E3           | 68       | D    | -10.64           | 46 | 4.80             | 40 | 5.81             | 26 | 4.23              |
| 38 | E101         | 73       | D    | -10.85           | 30 | 7.73             | 29 | 7.28             |    | N/A               |
| 39 | E52          | 77       | D    | -10.95           | 37 | 7.13             | 36 | 6.18             | 30 | 3.74              |
|    | D-JONES      |          |      | -11.70           |    | 4.88             |    | 3.45             |    | 3.70              |
|    | SP500        |          |      | -11.76           |    | 7.68             |    | 7.19             |    | 4.79              |
| 40 | E54          | 71       | C    | -11.85           | 7  | 13.01            | 3  | 13.24            | 12 | 5.66              |

ENDOWMENT POOLS 65% OR MORE IN EQUITY  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 41      | E43          | 72       | C    | -11.89%          | 29 | 7.74 %           | 13 | 9.74 %           | 4  | 7.63 %            |
| 42      | C77          | 89       | A    | -12.40           | 28 | 7.78             | 21 | 8.26             | 6  | 7.46              |
|         | SP-IND       |          |      | -12.64           |    | 7.63             |    | 7.21             |    | 4.49              |
|         | COM-FDEQ     | 95       | A    | -13.25           |    | 11.31            |    | 12.72            |    | 5.35              |
| 43      | E5           | 76       | B    | -13.28           | 6  | 13.01            | 6  | 12.37            | 16 | 5.06              |
| 44      | E34          | 70       | A    | -13.35           | 10 | 11.70            | 10 | 10.50            | 23 | 4.61              |
| 45      | C63          | 77       | C    | -13.49           | 8  | 11.91            | 5  | 12.39            | 14 | 5.24              |
| 46      | E25          | 80       | D    | -13.52           | 5  | 13.25            | 7  | 12.09            | 11 | 5.78              |
| 47      | C24          | 80       | D    | -13.79           | 39 | 6.93             | 27 | 7.36             |    | N/A               |
| 48      | C27          | 79       | E    | -13.81           | 49 | -1.03            | 44 | 3.97             |    | N/A               |
| 49      | E26          | 74       | D    | -14.05           | 19 | 9.12             | 12 | 10.08            | 22 | 4.71              |
| 50      | E75          | 74       | C    | -14.53           | 33 | 7.44             | 34 | 6.46             | 8  | 6.69              |
| 51      | E112         | 72       | C    | -14.72           |    | N/A              |    | N/A              |    | N/A               |
| 52      | E94          | 73       | D    | -15.35           | 4  | 13.93            | 4  | 12.92            |    | N/A               |
| AVERAGE |              | 52       |      | -5.80 %          | 49 | 8.89 %           | 45 | 8.46 %           | 35 | 5.66 %            |

ENDOWMENT POOLS 50% TO 65% IN EQUITY  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 1  | C60          | 57       | B    | 12.38%           | 16 | 11.15%           | 13 | 10.47%           | 7  | 7.50%             |
|    | COM-FDBD     | 0        | A    | 10.98            |    | 0.10             |    | 2.30             |    | N/A               |
|    | LEH-KUHN     |          |      | 9.04             |    | -1.18            |    | 0.64             |    | N/A               |
| 2  | E16          | 57       | D    | 8.54             | 2  | 16.89            | 4  | 12.80            | 6  | 7.55              |
| 3  | E49          | 52       | C    | 8.16             | 23 | 10.32            | 10 | 10.85            | 35 | 4.61              |
| 4  | E68          | 56       | C    | 8.02             | 33 | 9.59             | 31 | 8.48             | 42 | 4.20              |
|    | SALOMON      |          |      | 7.43             |    | -3.85            |    | -1.23            |    | 2.76              |
| 5  | C65          | 51       | C    | 7.16             | 7  | 13.80            | 9  | 10.96            | 5  | 8.45              |
| 6  | C34          | 57       | C    | 5.54             | 24 | 10.31            | 18 | 9.69             | 52 | 3.59              |
| 7  | C70          | 55       | D    | 5.11             | 29 | 10.04            | 36 | 8.06             | 11 | 6.19              |
| 8  | C10          | 52       | F    | 4.98             | 87 | 2.95             | 75 | 4.58             |    | N/A               |
| 9  | C35          | 51       | C    | 4.54             | 5  | 13.95            | 2  | 13.85            | 2  | 10.65             |
| 10 | E83          | 50       | F    | 4.32             | 67 | 6.44             | 62 | 5.70             | 51 | 3.67              |
| 11 | E60          | 51       | D    | 4.27             | 25 | 10.26            | 44 | 7.48             | 37 | 4.59              |
| 12 | C9           | 51       | A    | 3.81             | 44 | 8.44             | 48 | 7.18             | 23 | 5.49              |
| 13 | E35          | 59       | C    | 3.80             | 46 | 8.36             | 46 | 7.40             | 59 | 3.12              |
| 14 | E65          | 53       | C    | 3.04             | 18 | 10.94            | 26 | 8.99             | 24 | 5.45              |
| 15 | C20          | 55       | B    | 2.79             | 39 | 8.68             | 37 | 8.05             | 17 | 5.73              |
| 16 | E93          | 57       | B    | 2.35             | 9  | 13.19            | 12 | 10.57            |    | N/A               |
| 17 | E64          | 57       | E    | 2.30             | 22 | 10.39            | 17 | 9.80             | 61 | 2.29              |
| 18 | C44          | 57       | F    | 2.12             | 8  | 13.29            | 5  | 12.66            | 19 | 5.69              |
| 19 | C13          | 61       | D    | 1.99             | 3  | 14.66            | 1  | 14.59            | 1  | 14.68             |
| 20 | C15          | 54       | A    | 1.36             | 12 | 11.80            | 14 | 10.20            | 30 | 4.92              |
| 21 | C101         | 50       | D    | 1.29             |    | N/A              |    | N/A              |    | N/A               |
| 22 | C75          | 56       | E    | 1.25             | 56 | 7.33             | 54 | 6.61             | 40 | 4.46              |
| 23 | E27          | 54       | B    | 1.10             | 19 | 10.89            | 28 | 8.54             | 38 | 4.59              |
| 24 | E98          | 61       | F    | 0.98             | 21 | 10.52            | 24 | 9.10             | 14 | 5.95              |
| 25 | E8           | 54       | A    | 0.91             | 13 | 11.74            | 16 | 9.94             | 22 | 5.50              |
| 26 | C73          | 50       | F    | 0.70             | 68 | 6.32             | 68 | 5.33             |    | N/A               |
| 27 | E100         | 59       | B    | 0.59             | 61 | 6.87             | 59 | 6.13             |    | N/A               |
| 28 | E29          | 63       | A    | 0.53             | 30 | 9.95             | 33 | 8.41             | 43 | 4.08              |
| 29 | E70          | 63       | D    | 0.52             | 38 | 9.14             | 32 | 8.46             |    | N/A               |
| 30 | E48          | 52       | E    | 0.18             | 52 | 7.68             | 21 | 9.36             |    | N/A               |
| 31 | E74          | 59       | D    | 0.05             | 69 | 6.15             |    | N/A              |    | N/A               |
| 32 | C49          | 51       | D    | 0.01             | 85 | 3.98             | 78 | 4.26             | 62 | 2.23              |
| 33 | E1           | 55       | A    | -0.08            | 17 | 11.12            | 22 | 9.29             | 53 | 3.56              |
| 34 | E61          | 64       | D    | -0.33            | 45 | 8.40             | 53 | 6.66             |    | N/A               |
| 35 | C80          | 60       | F    | -0.40            | 50 | 7.85             | 58 | 6.23             | 54 | 3.46              |
| 36 | E90          | 51       | A    | -0.42            | 77 | 5.47             | 67 | 5.37             |    | N/A               |
| 37 | E57          | 55       | A    | -0.57            | 43 | 8.47             | 41 | 7.56             | 15 | 5.81              |
| 38 | C91          | 51       | F    | -0.65            | 86 | 3.36             | 80 | 4.06             | 57 | 3.30              |
| 39 | E73          | 50       | A    | -0.79            | 58 | 7.29             | 52 | 6.68             | 32 | 4.84              |
| 40 | C3           | 57       | B    | -0.86            | 81 | 4.97             | 77 | 4.29             | 44 | 4.06              |
| 41 | E104         | 60       | F    | -1.01            | 49 | 8.00             |    | N/A              |    | N/A               |
| 42 | C56          | 59       | A    | -1.14            | 40 | 8.63             | 29 | 8.50             | 26 | 5.32              |
| 43 | E39          | 52       | D    | -1.20            | 76 | 5.51             | 66 | 5.39             | 55 | 7.41              |
| 44 | E47          | 60       | B    | -1.22            | 59 | 7.06             |    | N/A              |    | N/A               |
| 45 | E72          | 58       | B    | -1.22            | 47 | 8.25             | 42 | 7.55             | 20 | 5.58              |
| 46 | E2           | 62       | D    | -1.24            | 70 | 6.04             | 50 | 7.03             | 45 | 3.77              |
| 47 | E44          | 50       | F    | -1.24            | 62 | 6.86             | 65 | 5.47             | 50 | 3.71              |

ENDOWMENT POOLS 50% TO 65% IN EQUITY  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|---------|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 48      | E66          | 55       | C    | -1.24%           | 48 | 8.00%            | 45 | 7.42%            |    | N/A%              |
| 49      | C29          | 57       | A    | -1.30            | 36 | 9.29             | 43 | 7.52             | 36 | 4.59              |
| 50      | E6           | 51       | B    | -1.31            | 27 | 10.15            | 35 | 8.07             | 12 | 6.01              |
| 51      | E42          | 54       | E    | -1.32            | 32 | 9.61             | 38 | 7.99             | 18 | 5.73              |
| 52      | E103         | 61       | E    | -1.32            | 41 | 8.53             |    | N/A              |    | N/A               |
| 53      | C16          | 57       | C    | -1.38            | 71 | 5.94             | 69 | 5.17             | 56 | 3.32              |
| 54      | C8           | 57       | B    | -1.46            | 35 | 9.42             | 39 | 7.94             |    | N/A               |
| 55      | C79          | 57       | D    | -1.62            | 82 | 4.44             | 76 | 4.44             | 48 | 3.74              |
| 56      | C23          | 56       | E    | -1.75            | 1  | 20.03            | 3  | 13.51            | 13 | 5.97              |
| 57      | E95          | 50       | C    | -2.01            | 64 | 6.70             | 60 | 6.11             | 58 | 3.30              |
| 58      | C68          | 60       | A    | -2.13            | 78 | 5.18             |    | N/A              |    | N/A               |
| 59      | E24          | 62       | D    | -2.27            | 65 | 6.59             | 56 | 6.49             | 16 | 5.78              |
| 60      | E91          | 53       | F    | -2.31            | 57 | 7.33             | 55 | 6.52             | 21 | 5.55              |
| 61      | E99          | 53       | D    | -2.45            | 11 | 12.47            | 6  | 12.45            |    | N/A               |
| 62      | E63          | 59       | A    | -3.00            | 42 | 8.52             | 30 | 8.48             | 46 | 3.76              |
| 63      | E69          | 64       | B    | -3.00            | 80 | 5.01             | 64 | 5.54             | 63 | 0.68              |
| 64      | E92          | 61       | F    | -3.20            | 73 | 5.73             | 71 | 5.01             | 9  | 6.51              |
| 65      | C52          | 51       | F    | -3.24            | 75 | 5.54             | 61 | 5.98             | 28 | 5.07              |
| 66      | E55          | 63       | C    | -3.48            | 63 | 6.73             |    | N/A              |    | N/A               |
| 67      | E17          | 60       | B    | -3.65            | 79 | 5.15             | 73 | 4.99             | 27 | 5.18              |
| 68      | C14          | 58       | C    | -3.74            | 4  | 14.54            | 7  | 12.31            |    | N/A               |
| 69      | C45          | 62       | D    | -3.83            | 53 | 7.49             |    | N/A              |    | N/A               |
| 70      | C76          | 52       | D    | -4.01            | 34 | 9.51             | 47 | 7.35             | 41 | 4.32              |
| 71      | C2           | 50       | B    | -4.38            | 54 | 7.42             | 49 | 7.10             | 29 | 5.01              |
| 72      | E36          | 60       | A    | -4.47            | 15 | 11.28            | 15 | 10.01            | 25 | 5.34              |
| 73      | C31          | 59       | B    | -4.51            | 20 | 10.65            | 51 | 6.78             |    | N/A               |
| 74      | E77          | 55       | F    | -4.91            | 83 | 4.18             | 72 | 5.01             | 47 | 3.76              |
| 75      | E71          | 57       | C    | -5.13            | 72 | 5.84             | 63 | 5.58             | 39 | 4.55              |
| 76      | E79          | 59       | D    | -5.26            | 51 | 7.81             | 40 | 7.57             | 34 | 4.63              |
| 77      | E45          | 56       | A    | -5.69            | 31 | 9.72             | 25 | 9.09             | 8  | 6.63              |
| 78      | E108         | 59       | C    | -5.70            | 74 | 5.59             | 74 | 4.92             | 31 | 4.89              |
| 79      | E30          | 62       | A    | -5.93            | 10 | 12.89            | 23 | 9.12             | 33 | 4.76              |
| 80      | C66          | 59       | D    | -6.28            | 6  | 13.82            | 8  | 11.68            |    | N/A               |
| 81      | E97          | 64       | F    | -6.29            | 84 | 4.12             | 70 | 5.06             | 10 | 6.43              |
| 82      | E86          | 64       | D    | -6.86            | 66 | 6.51             |    | N/A              |    | N/A               |
| 83      | C98          | 62       | D    | -7.28            | 55 | 7.38             | 19 | 9.60             | 4  | 9.97              |
| 84      | C87          | 53       | D    | -7.96            | 37 | 9.21             | 34 | 8.27             | 60 | 2.43              |
| 85      | E56          | 59       | B    | -8.80            | 60 | 6.92             | 57 | 6.38             | 49 | 3.72              |
| 86      | E12          | 59       | F    | -8.97            | 14 | 11.59            | 20 | 9.52             |    | N/A               |
| 87      | C48          | 60       | B    | -10.02           | 28 | 10.12            | 11 | 10.66            |    | N/A               |
|         | D-JONES      |          |      | -11.70           |    | 4.88             |    | 3.45             |    | 3.70              |
|         | SP500        |          |      | -11.76           |    | 7.68             |    | 7.19             |    | 4.79              |
|         | SP-IND       |          |      | -12.64           |    | 7.63             |    | 7.21             |    | 4.49              |
|         | COM-FDEQ     | 95       | A    | -13.25           |    | 11.31            |    | 12.72            |    | 5.35              |
| 88      | C40          | 51       | E    | -14.61           | 26 | 10.25            | 27 | 8.65             | 3  | 10.32             |
| 89      | C51          | 59       | F    | -16.53           | 88 | 2.30             | 79 | 4.15             |    | N/A               |
|         |              |          |      |                  |    |                  |    |                  |    |                   |
| AVERAGE |              | 89       |      | -1.15%           | 88 | 8.67%            | 80 | 7.94%            | 63 | 5.14%             |



ENDOWMENT POOLS UNDER 50% IN EQUITY  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 1 YEAR<br>RETURN | #  | 3 YEAR<br>RETURN | #  | 5 YEAR<br>RETURN | #  | 10 YEAR<br>RETURN |
|----|--------------|----------|------|------------------|----|------------------|----|------------------|----|-------------------|
| 1  | C69          | 0        | D    | 15.69%           | 18 | 9.29%            | 29 | 7.66%            |    | N/A               |
| 2  | C59          | 29       | B    | 15.22            | 20 | 9.17             |    | N/A              |    | N/A               |
| 3  | E7           | 48       | F    | 14.64            | 10 | 10.83            | 19 | 8.44             | 48 | 2.31              |
| 4  | C6           | 14       | D    | 13.16            | 7  | 11.06            | 16 | 8.69             | 23 | 5.16              |
| 5  | C7           | 8        | A    | 12.90            | 4  | 11.85            | 13 | 9.10             | 40 | 3.61              |
| 6  | C85          | 31       | D    | 11.99            | 27 | 8.60             | 18 | 8.47             | 14 | 5.72              |
|    | COM-FDBD     | 0        | A    | 10.93            |    | 0.10             |    | 2.30             |    | N/A               |
| 7  | C30          | 43       | E    | 10.70            | 9  | 10.96            | 17 | 8.49             | 16 | 5.60              |
| 8  | C74          | 12       | D    | 10.38            | 15 | 10.06            | 4  | 11.18            | 3  | 9.27              |
| 9  | E87          | 5        | F    | 9.79             | 71 | 2.59             | 67 | 2.74             | 34 | 4.12              |
| 10 | E58          | 43       | D    | 9.60             | 44 | 7.09             | 47 | 6.03             | 12 | 6.15              |
|    | LEH-KUHN     |          |      | 9.04             |    | -1.18            |    | 0.64             |    | N/A               |
| 11 | E106         | 29       | E    | 8.77             |    | N/A              |    | N/A              |    | N/A               |
| 12 | C67          | 27       | E    | 8.42             | 36 | 7.74             | 35 | 7.08             | 32 | 4.52              |
| 13 | C90          | 14       | C    | 7.98             |    | N/A              |    | N/A              |    | N/A               |
| 14 | C37          | 24       | F    | 7.77             | 61 | 4.58             | 60 | 4.25             |    | N/A               |
|    | SALOMON      |          |      | 7.43             |    | -3.85            |    | -1.23            |    | 2.76              |
| 15 | E111         | 31       | E    | 6.96             |    | N/A              |    | N/A              |    | N/A               |
| 16 | E82          | 38       | F    | 6.43             | 35 | 7.79             | 39 | 6.72             | 15 | 5.66              |
| 17 | E109         | 24       | F    | 5.88             | 49 | 6.35             | 54 | 5.12             | 41 | 3.52              |
| 18 | E80          | 25       | C    | 5.57             | 16 | 9.61             | 8  | 10.14            | 18 | 5.49              |
| 19 | C86          | 38       | D    | 5.31             | 23 | 8.79             | 23 | 8.22             | 7  | 7.66              |
| 20 | E110         | 39       | A    | 5.16             | 34 | 8.02             | 21 | 8.32             |    | N/A               |
| 21 | C22          | 41       | A    | 5.14             | 8  | 10.99            | 11 | 9.51             | 22 | 5.31              |
| 22 | C38          | 33       | C    | 5.04             | 26 | 8.61             | 14 | 9.06             | 5  | 8.04              |
| 23 | C83          | 33       | D    | 4.85             | 33 | 8.04             | 22 | 8.24             | 33 | 4.38              |
| 24 | C89          | 24       | D    | 4.70             | 46 | 7.04             | 42 | 6.63             |    | N/A               |
| 25 | C61          | 39       | A    | 4.63             | 57 | 5.10             |    | N/A              |    | N/A               |
| 26 | C88          | 32       | D    | 4.43             | 17 | 9.53             | 24 | 8.14             | 17 | 5.54              |
| 27 | C92          | 23       | E    | 4.30             | 41 | 7.29             | 34 | 7.16             | 37 | 3.90              |
| 28 | E84          | 35       | F    | 3.80             | 30 | 8.15             | 28 | 7.85             |    | N/A               |
| 29 | C64          | 20       | E    | 3.44             | 50 | 6.33             | 52 | 5.39             | 19 | 5.40              |
| 30 | E28          | 17       | A    | 3.28             | 58 | 4.99             | 44 | 6.33             | 35 | 4.06              |
| 31 | E51          | 47       | C    | 3.10             | 12 | 10.44            | 6  | 10.69            | 10 | 6.84              |
| 32 | C50          | 48       | F    | 3.02             | 38 | 7.50             | 37 | 6.87             | 25 | 4.77              |
| 33 | E50          | 29       | C    | 2.87             | 2  | 14.05            | 3  | 11.48            | 44 | 2.77              |
| 34 | E22          | 38       | D    | 2.82             | 66 | 3.53             | 63 | 3.79             | 28 | 4.70              |
| 35 | E88          | 14       | F    | 2.68             | 73 | -1.36            | 70 | 0.53             | 39 | 3.66              |
| 36 | E20          | 46       | C    | 2.68             | 3  | 13.18            | 10 | 9.99             | 9  | 7.39              |
| 37 | E23          | 44       | F    | 2.59             | 69 | 3.14             | 61 | 4.09             | 49 | 2.09              |
| 38 | C54          | 37       | A    | 2.56             | 11 | 10.74            | 1  | 13.70            | 4  | 8.15              |
| 39 | C19          | 49       | D    | 2.46             | 63 | 4.53             | 59 | 4.34             |    | N/A               |
| 40 | C21          | 39       | C    | 2.23             | 25 | 8.67             | 48 | 5.76             | 45 | 2.70              |
| 41 | C46          | 33       | D    | 2.14             | 32 | 8.05             | 40 | 6.72             | 27 | 4.72              |
| 42 | C36          | 41       | E    | 1.94             | 56 | 5.51             | 53 | 5.19             |    | N/A               |
| 43 | E9           | 32       | E    | 1.83             | 64 | 4.03             | 55 | 4.82             |    | N/A               |
| 44 | E41          | 40       | E    | 1.77             | 62 | 4.54             | 62 | 4.07             | 47 | 2.34              |
| 45 | E96          | 49       | B    | 1.72             | 19 | 9.24             | 27 | 7.85             |    | N/A               |
| 46 | E59          | 44       | D    | 1.65             | 24 | 8.78             | 31 | 7.41             | 30 | 4.68              |
| 47 | C95          | 43       | E    | 1.40             | 21 | 9.04             | 26 | 7.89             | 20 | 5.38              |



ENDOWMENT POOLS UNDER 50% IN EQUITY  
AVERAGE ANNUAL TOTAL RETURN PERFORMANCE  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE     | EQ   | SIZE | 1 YEAR  | #  | 3 YEAR | #  | 5 YEAR | #  | 10 YEAR |
|---------|----------|------|------|---------|----|--------|----|--------|----|---------|
|         | NAME     | SIZE |      | RETURN  |    | RETURN |    | RETURN |    | RETURN  |
| 48      | C18      | 40   | D    | 1.38%   | 5  | 11.21% | 9  | 10.04% | 2  | 9.53%   |
| 49      | C72      | 48   | A    | 1.09    | 40 | 7.45   | 33 | 7.22   | 6  | 7.90    |
| 50      | C5       | 30   | D    | 0.56    | 53 | 5.88   | 45 | 6.25   | 21 | 5.34    |
| 51      | E32      | 47   | C    | 0.29    | 45 | 7.08   | 46 | 6.10   | 26 | 4.76    |
| 52      | E78      | 44   | D    | 0.18    | 59 | 4.95   | 56 | 4.63   | 29 | 4.68    |
| 53      | E114     | 33   | E    | 0.14    | 29 | 8.29   | 57 | 4.42   | 24 | 4.81    |
| 54      | C94      | 17   | D    | -0.06   | 31 | 8.11   | 12 | 9.25   |    | N/A     |
| 55      | C103     | 49   | D    | -0.15   | 39 | 7.46   |    | N/A    |    | N/A     |
| 56      | E13      | 35   | D    | -0.30   | 68 | 3.18   | 64 | 3.61   | 31 | 4.57    |
| 57      | E31      | 44   | A    | -0.47   | 52 | 5.94   | 49 | 5.70   |    | N/A     |
| 58      | C33      | 48   | F    | -0.60   | 70 | 2.59   | 66 | 2.85   |    | N/A     |
| 59      | C100     | 39   | D    | -0.79   | 42 | 7.27   | 41 | 6.69   |    | N/A     |
| 60      | C57      | 46   | C    | -0.81   | 13 | 10.20  | 25 | 7.99   | 50 | 1.81    |
| 61      | C47      | 45   | D    | -0.95   | 67 | 3.48   | 65 | 3.33   | 38 | 3.88    |
| 62      | E89      | 37   | B    | -1.01   | 1  | 16.19  | 2  | 11.57  |    | N/A     |
| 63      | E85      | 44   | C    | -1.48   | 43 | 7.17   | 36 | 6.94   |    | N/A     |
| 64      | C96      | 44   | A    | -1.52   | 60 | 4.71   | 38 | 6.77   |    | N/A     |
| 65      | C39      | 45   | D    | -1.52   | 55 | 5.74   | 50 | 5.62   | 51 | 1.62    |
| 66      | E37      | 48   | B    | -1.72   | 14 | 10.14  | 15 | 9.01   | 11 | 6.65    |
| 67      | C97      | 44   | E    | -2.40   | 37 | 7.69   | 69 | 1.12   | 36 | 3.91    |
| 68      | C32      | 13   | E    | -2.66   | 54 | 5.82   | 5  | 11.06  | 1  | 11.06   |
| 69      | C71      | 27   | D    | -3.39   | 48 | 6.48   | 32 | 7.37   |    | N/A     |
| 70      | C78      | 42   | D    | -3.45   | 65 | 3.96   | 58 | 4.37   | 52 | 1.30    |
| 71      | C53      | 48   | F    | -3.78   | 47 | 7.02   | 30 | 7.41   |    | N/A     |
| 72      | E81      | 47   | D    | -4.72   | 22 | 8.87   | 43 | 6.54   | 43 | 2.99    |
| 73      | E11      | 17   | A    | -6.00   | 6  | 11.12  | 7  | 10.16  | 13 | 5.78    |
| 74      | C84      | 29   | C    | -7.64   | 72 | -0.02  | 68 | 1.57   | 46 | 2.51    |
| 75      | C26      | 47   | E    | -8.81   |    | N/A    |    | N/A    |    | N/A     |
| 76      | C25      | 12   | A    | -9.03   | 28 | 8.52   | 20 | 8.38   | 8  | 7.46    |
|         | D-JONES  |      |      | -11.70  |    | 4.88   |    | 3.45   |    | 3.70    |
|         | SP500    |      |      | -11.76  |    | 7.68   |    | 7.19   |    | 4.79    |
|         | SP-IND   |      |      | -12.64  |    | 7.63   |    | 7.21   |    | 4.49    |
|         | COM-FDEQ | 95   | A    | -13.25  |    | 11.31  |    | 12.72  |    | 5.35    |
| 77      | E15      | 49   | C    | -15.61% | 51 | 6.28%  | 51 | 5.46%  | 42 | 3.31%   |
|         |          |      |      |         |    |        |    |        |    |         |
| AVERAGE |          | 77   |      | 2.60    | 73 | 7.49   | 70 | 6.94   | 52 | 4.99    |

ALL INVESTMENT POOLS  
RANKING BY EFFICIENCY AND BETA  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE NAME | EQ % | SIZE | 5 YEAR EFFIC | #  | 10 YEAR EFFIC | #   | 5 YEAR BETA | #   | 10 YEAR BETA |
|----|-----------|------|------|--------------|----|---------------|-----|-------------|-----|--------------|
| 1  | C99       | 72   | B    | 0.77 %       | 1  | 0.87 %        | 171 | 0.14 %      | 150 | -0.55 %      |
| 2  | C13       | 61   | D    | 0.50         | 2  | 0.73          | 54  | 0.63        | 66  | 0.64         |
| 3  | C35       | 51   | C    | 0.48         | 3  | 0.30          | 79  | 0.51        | 114 | 0.46         |
| 4  | E102      | 72   | D    | 0.47         | 9  | 0.10          | 4   | 1.30        | 3   | 1.29         |
| 5  | C54       | 37   | A    | 0.42         | 13 | -0.04         | 110 | 0.44        | 95  | 0.54         |
| 6  | E16       | 57   | D    | 0.28         | 18 | -0.10         | 91  | 0.48        | 84  | 0.57         |
| 7  | C44       | 57   | F    | 0.25         | 20 | -0.11         | 88  | 0.49        | 36  | 0.76         |
| 8  | E54       | 71   | C    | 0.22         | 24 | -0.13         | 10  | 1.19        | 4   | 1.24         |
| 9  | E99       | 53   | D    | 0.21         |    | N/A           | 57  | 0.63        |     | N/A          |
| 10 | C23       | 56   | E    | 0.21         | 17 | -0.10         | 23  | 0.92        | 14  | 0.94         |
|    | CDM-FDEQ  | 0    | E    | 0.19         |    | -0.14         |     | 1.15        |     | 1.22         |
| 11 | E94       | 73   | D    | 0.19         |    | N/A           | 1   | 1.62        |     | N/A          |
| 12 | C14       | 58   | C    | 0.17         |    | N/A           | 24  | 0.91        |     | N/A          |
| 13 | C63       | 77   | C    | 0.17         | 28 | -0.14         | 9   | 1.24        | 5   | 1.23         |
| 14 | E5        | 76   | B    | 0.16         | 27 | -0.14         | 3   | 1.33        | 2   | 1.37         |
| 15 | E25       | 80   | D    | 0.15         | 23 | -0.12         | 6   | 1.28        | 7   | 1.17         |
| 16 | C66       | 50   | D    | 0.12         |    | N/A           | 16  | 1.01        |     | N/A          |
| 17 | E89       | 37   | B    | 0.10         |    | N/A           | 34  | 0.81        |     | N/A          |
| 18 | E50       | 29   | C    | 0.10         | 89 | -0.46         | 71  | 0.55        | 54  | 0.68         |
| 19 | C43       | 67   | F    | 0.10         |    | N/A           | 29  | 0.88        |     | N/A          |
| 20 | C74       | 12   | D    | 0.07         | 7  | 0.12          | 172 | 0.13        | 147 | 0.11         |
| 21 | C32       | 13   | E    | 0.06         | 4  | 0.28          | 68  | 0.55        | 110 | 0.48         |
| 22 | C28       | 76   | C    | 0.06         |    | N/A           | 32  | 0.83        |     | N/A          |
| 23 | E34       | 70   | A    | 0.05         | 38 | -0.24         | 5   | 1.28        | 9   | 1.09         |
| 24 | C48       | 60   | B    | 0.03         |    | N/A           | 18  | 0.99        |     | N/A          |
| 25 | C65       | 51   | C    | 0.03         | 10 | -0.01         | 121 | 0.38        | 97  | 0.54         |
| 26 | E19       | 71   | B    | 0.02         | 35 | -0.22         | 17  | 0.99        | 12  | 0.98         |
| 27 | E26       | 74   | D    | 0.02         | 32 | -0.20         | 7   | 1.25        | 6   | 1.20         |
| 28 | E51       | 47   | C    | -0.01        | 41 | -0.25         | 106 | 0.44        | 105 | 0.51         |
| 29 | E93       | 57   | B    | -0.02        |    | N/A           | 70  | 0.55        |     | N/A          |
| 30 | E11       | 17   | A    | -0.02        | 30 | -0.20         | 27  | 0.88        | 13  | 0.95         |
| 31 | E43       | 72   | C    | -0.02        | 12 | -0.04         | 12  | 1.07        | 10  | 0.99         |
| 32 | E12       | 59   | F    | -0.03        |    | N/A           | 11  | 1.18        |     | N/A          |
| 33 | E49       | 52   | C    | -0.04        | 40 | -0.24         | 182 | 0.06        | 30  | 0.78         |
| 34 | C40       | 51   | E    | -0.04        | 6  | 0.17          | 2   | 1.43        | 8   | 1.10         |
| 35 | E36       | 60   | A    | -0.05        | 51 | -0.31         | 35  | 0.80        | 53  | 0.68         |
| 36 | C15       | 54   | A    | -0.07        | 47 | -0.27         | 64  | 0.58        | 26  | 0.81         |
| 37 | E20       | 46   | C    | -0.08        | 21 | -0.12         | 58  | 0.60        | 45  | 0.72         |
| 38 | E30       | 62   | A    | -0.09        | 52 | -0.31         | 19  | 0.97        | 22  | 0.85         |
| 39 | C18       | 40   | D    | -0.11        | 8  | 0.12          | 74  | 0.53        | 77  | 0.60         |
| 40 | C98       | 62   | D    | -0.11        | 5  | 0.19          | 49  | 0.66        | 123 | 0.41         |
| 41 | E8        | 54   | A    | -0.11        | 49 | -0.29         | 69  | 0.55        | 100 | 0.53         |
| 42 | E45       | 56   | A    | -0.13        | 26 | -0.14         | 30  | 0.85        | 19  | 0.90         |
| 43 | E64       | 57   | E    | -0.14        | 65 | -0.39         | 92  | 0.48        | 21  | 0.86         |
| 44 | C77       | 89   | A    | -0.15        | 14 | -0.06         | 15  | 1.02        | 11  | 0.99         |
| 45 | E33       | 75   | A    | -0.16        | 74 | -0.41         | 33  | 0.82        | 31  | 0.78         |
| 46 | C25       | 12   | A    | -0.17        | 16 | -0.09         | 21  | 0.94        | 23  | 0.83         |
| 47 | C93       | 77   | C    | -0.17        | 15 | -0.06         | 20  | 0.95        | 15  | 0.92         |
| 48 | C55       | 77   | A    | -0.18        | 22 | -0.12         | 85  | 0.50        | 82  | 0.58         |

ALL INVESTMENT POOLS  
RANKING BY EFFICIENCY AND BETA  
FOR THE PERIOD ENDING JUNE 30, 1982

| #  | CODE<br>NAME | EQ<br>%* | SIZE | 5 YEAR<br>EFFIC | #   | 10 YEAR<br>EFFIC | #   | 5 YEAR<br>BETA | #   | 10 YEAR<br>BETA |
|----|--------------|----------|------|-----------------|-----|------------------|-----|----------------|-----|-----------------|
| 49 | E37          | 48       | B    | -0.18%          | 36  | -0.23%           | 46  | 0.68%          | 69  | 0.63%           |
| 50 | E40          | 67       | A    | -0.19           | 48  | -0.28            | 31  | 0.84           | 18  | 0.90            |
| 51 | C87          | 53       | D    | -0.20           | 102 | -0.51            | 28  | 0.88           | 17  | 0.91            |
| 52 | E75          | 74       | C    | -0.21           | 11  | -0.02            | 8   | 1.24           | 1   | 1.38            |
| 53 | E1           | 55       | A    | -0.21           | 84  | -0.45            | 72  | 0.55           | 35  | 0.76            |
| 54 | C24          | 80       | D    | -0.22           |     | N/A              | 14  | 1.02           |     | N/A             |
|    | SP-IND       |          |      | -0.24           |     | -0.31            |     | 1.04           |     | 1.01            |
| 55 | E21          | 65       | A    | -0.25           | 91  | -0.47            | 41  | 0.73           | 38  | 0.75            |
|    | SP500        |          |      | -0.25           |     | -0.29            |     | 1.00           |     | 1.00            |
| 56 | E80          | 25       | C    | -0.25           | 57  | -0.34            | 162 | 0.20           | 99  | 0.53            |
| 57 | C82          | 70       | B    | -0.26           | 80  | -0.43            | 44  | 0.70           | 16  | 0.91            |
| 58 | E53          | 67       | B    | -0.26           | 29  | -0.16            | 53  | 0.63           | 34  | 0.77            |
| 59 | E48          | 52       | E    | -0.27           |     | N/A              | 155 | 0.24           |     | N/A             |
| 60 | E98          | 61       | F    | -0.27           | 61  | -0.36            | 87  | 0.49           | 86  | 0.57            |
| 61 | E101         | 73       | D    | -0.28           |     | N/A              | 25  | 0.89           |     | N/A             |
| 62 | C42          | 70       | B    | -0.28           | 95  | -0.48            | 43  | 0.72           | 28  | 0.79            |
| 63 | E27          | 54       | B    | -0.28           | 71  | -0.40            | 65  | 0.57           | 39  | 0.74            |
| 64 | E68          | 56       | C    | -0.29           | 83  | -0.44            | 177 | 0.09           | 116 | 0.46            |
| 65 | C60          | 57       | B    | -0.29           | 31  | -0.20            | 186 | -0.01          | 136 | 0.31            |
| 66 | C22          | 41       | A    | -0.30           | 73  | -0.41            | 136 | 0.33           | 91  | 0.56            |
| 67 | E38          | 66       | A    | -0.31           | 34  | -0.22            | 37  | 0.79           | 24  | 0.82            |
| 68 | C76          | 52       | D    | -0.31           | 77  | -0.43            | 47  | 0.68           | 47  | 0.71            |
| 69 | E63          | 59       | A    | -0.31           | 100 | -0.50            | 63  | 0.59           | 49  | 0.71            |
| 70 | E46          | 80       | A    | -0.31           | 75  | -0.43            | 38  | 0.79           | 25  | 0.82            |
| 71 | E6           | 51       | B    | -0.31           | 43  | -0.26            | 56  | 0.63           | 41  | 0.73            |
| 72 | C94          | 17       | D    | -0.32           |     | N/A              | 139 | 0.31           |     | N/A             |
| 73 | E15          | 49       | C    | -0.33           | 72  | -0.41            | 13  | 1.05           | 32  | 0.78            |
| 74 | C56          | 59       | A    | -0.34           | 60  | -0.36            | 80  | 0.51           | 63  | 0.65            |
| 75 | E65          | 53       | C    | -0.35           | 55  | -0.33            | 124 | 0.38           | 80  | 0.59            |
| 76 | E29          | 63       | A    | -0.36           | 66  | -0.39            | 78  | 0.52           | 44  | 0.72            |
| 77 | E52          | 77       | D    | -0.36           | 70  | -0.39            | 22  | 0.94           | 20  | 0.89            |
| 78 | C4           | 81       | C    | -0.37           |     | N/A              | 36  | 0.79           |     | N/A             |
| 79 | C31          | 59       | B    | -0.37           |     | N/A              | 50  | 0.66           |     | N/A             |
| 80 | E42          | 54       | E    | -0.37           | 44  | -0.27            | 96  | 0.47           | 67  | 0.64            |
| 81 | C34          | 57       | C    | -0.37           | 119 | -0.60            | 151 | 0.26           | 106 | 0.50            |
| 82 | E62          | 68       | E    | -0.37           | 78  | -0.43            | 55  | 0.63           | 78  | 0.60            |
| 83 | C8           | 57       | B    | -0.38           |     | N/A              | 66  | 0.56           |     | N/A             |
| 84 | E79          | 59       | D    | -0.39           | 85  | -0.45            | 52  | 0.65           | 46  | 0.71            |
| 85 | C57          | 46       | C    | -0.39           | 124 | -0.63            | 105 | 0.44           | 55  | 0.68            |
| 86 | E7           | 48       | F    | -0.41           | 120 | -0.60            | 187 | -0.03          | 120 | 0.43            |
| 87 | E70          | 63       | D    | -0.41           |     | N/A              | 99  | 0.46           |     | N/A             |
| 88 | C29          | 57       | A    | -0.42           | 94  | -0.48            | 67  | 0.56           | 75  | 0.61            |
| 89 | E4           | 67       | D    | -0.43           | 108 | -0.54            | 48  | 0.67           | 33  | 0.77            |
| 90 | C27          | 79       | E    | -0.43           |     | N/A              | 101 | 0.45           |     | N/A             |
| 91 | E81          | 47       | D    | -0.44           | 106 | -0.53            | 42  | 0.72           | 29  | 0.79            |
| 92 | E56          | 59       | B    | -0.44           | 110 | -0.54            | 39  | 0.77           | 42  | 0.73            |
| 93 | C58          | 79       | D    | -0.49           | 115 | -0.58            | 98  | 0.46           | 62  | 0.65            |
| 94 | C7           | 8        | A    | -0.50           | 105 | -0.53            | 185 | -0.01          | 144 | 0.21            |
| 95 | E57          | 55       | A    | -0.50           | 53  | -0.32            | 90  | 0.49           | 58  | 0.66            |
| 96 | C2           | 50       | B    | -0.50           | 69  | -0.39            | 62  | 0.59           | 48  | 0.71            |

ALL INVESTMENT POOLS  
RANKING BY EFFICIENCY AND BETA  
FOR THE PERIOD ENDING JUNE 30, 1982

| #   | CODE<br>NAME | EQ<br>%* | SIZE | 5 YEAR<br>EFFIC | #   | 10 YEAR<br>EFFIC | #   | 5 YEAR<br>BETA | #   | 10 YEAR<br>BETA |
|-----|--------------|----------|------|-----------------|-----|------------------|-----|----------------|-----|-----------------|
| 97  | C96          | 44       | A    | -0.50%          |     | N/A              | 113 | 0.42%          |     | N/A %           |
| 98  | E3           | 68       | D    | -0.51           | 101 | -0.50            | 40  | 0.74           | 52  | 0.69            |
| 99  | E72          | 58       | B    | -0.52           | 56  | -0.34            | 83  | 0.51           | 56  | 0.67            |
| 100 | C53          | 48       | F    | -0.52           |     | N/A              | 94  | 0.47           |     | N/A             |
| 101 | E76          | 65       | F    | -0.53           | 116 | -0.58            | 45  | 0.69           | 73  | 0.61            |
| 102 | E66          | 55       | C    | -0.53           |     | N/A              | 84  | 0.51           |     | N/A             |
| 103 | C100         | 39       | D    | -0.54           |     | N/A              | 107 | 0.44           |     | N/A             |
| 104 | E96          | 49       | B    | -0.54           |     | N/A              | 112 | 0.42           |     | N/A             |
| 105 | C51          | 59       | F    | -0.54           |     | N/A              | 26  | 0.88           |     | N/A             |
| 106 | C38          | 33       | C    | -0.55           | 25  | -0.13            | 175 | 0.11           | 135 | 0.31            |
| 107 | C30          | 43       | E    | -0.56           | 46  | -0.27            | 173 | 0.12           | 89  | 0.56            |
| 108 | C20          | 55       | B    | -0.56           | 62  | -0.37            | 130 | 0.36           | 85  | 0.57            |
| 109 | C69          | 0        | D    | -0.56           |     | N/A              | 194 | -0.24          |     | N/A             |
| 110 | C95          | 43       | E    | -0.57           | 58  | -0.35            | 115 | 0.41           | 68  | 0.64            |
| 111 | E10          | 67       | D    | -0.57           | 121 | -0.61            | 60  | 0.60           | 37  | 0.76            |
| 112 | C6           | 14       | D    | -0.58           | 103 | -0.51            | 184 | 0.00           | 133 | 0.32            |
| 113 | C71          | 27       | D    | -0.58           |     | N/A              | 128 | 0.37           |     | N/A             |
| 114 | E24          | 62       | D    | -0.60           | 45  | -0.27            | 89  | 0.49           | 60  | 0.65            |
|     | D-JONES      |          |      | -0.61           |     | -0.47            |     | 0.90           |     | 0.84            |
| 115 | C85          | 31       | D    | -0.61           | 39  | -0.24            | 193 | -0.19          | 111 | 0.47            |
| 116 | E114         | 33       | E    | -0.61           | 87  | -0.45            | 75  | 0.53           | 146 | 0.17            |
| 117 | E18          | 68       | A    | -0.62           | 112 | -0.55            | 102 | 0.45           | 71  | 0.62            |
| 118 | E61          | 64       | D    | -0.63           |     | N/A              | 108 | 0.44           |     | N/A             |
| 119 | C70          | 55       | D    | -0.63           | 90  | -0.47            | 149 | 0.27           | 132 | 0.35            |
| 120 | E91          | 53       | F    | -0.63           | 67  | -0.39            | 73  | 0.53           | 94  | 0.54            |
| 121 | E85          | 44       | C    | -0.66           |     | N/A              | 95  | 0.47           |     | N/A             |
| 122 | E2           | 62       | D    | -0.67           | 107 | -0.54            | 114 | 0.42           | 61  | 0.65            |
| 123 | E60          | 51       | D    | -0.67           | 68  | -0.39            | 138 | 0.32           | 59  | 0.65            |
| 124 | E59          | 44       | D    | -0.68           | 86  | -0.45            | 129 | 0.36           | 102 | 0.52            |
| 125 | E71          | 57       | C    | -0.69           | 88  | -0.45            | 59  | 0.60           | 51  | 0.69            |
| 126 | E107         | 66       | F    | -0.69           | 54  | -0.33            | 51  | 0.65           | 27  | 0.80            |
| 127 | E73          | 50       | A    | -0.70           | 99  | -0.49            | 109 | 0.44           | 88  | 0.56            |
| 128 | C80          | 60       | F    | -0.70           | 118 | -0.59            | 116 | 0.41           | 76  | 0.60            |
| 129 | E44          | 50       | F    | -0.71           | 98  | -0.49            | 76  | 0.53           | 50  | 0.70            |
| 130 | C72          | 48       | A    | -0.72           | 19  | -0.11            | 123 | 0.38           | 109 | 0.48            |
| 131 | E110         | 39       | A    | -0.72           |     | N/A              | 160 | 0.21           |     | N/A             |
| 132 | C88          | 32       | D    | -0.73           | 76  | -0.43            | 146 | 0.28           | 107 | 0.49            |
| 133 | E84          | 35       | F    | -0.74           |     | N/A              | 144 | 0.28           |     | N/A             |
| 134 | C41          | 66       | D    | -0.78           | 33  | -0.22            | 142 | 0.29           | 65  | 0.65            |
| 135 | E108         | 59       | C    | -0.80           | 81  | -0.44            | 61  | 0.59           | 74  | 0.61            |
| 136 | C52          | 51       | F    | -0.81           | 97  | -0.49            | 97  | 0.46           | 83  | 0.58            |
| 137 | E14          | 66       | D    | -0.82           | 63  | -0.37            | 82  | 0.51           | 43  | 0.73            |
| 138 | E100         | 59       | B    | -0.82           |     | N/A              | 117 | 0.40           |     | N/A             |
| 139 | C21          | 39       | C    | -0.85           | 135 | -0.72            | 119 | 0.39           | 79  | 0.60            |
| 140 | E95          | 50       | C    | -0.85           | 138 | -0.76            | 100 | 0.45           | 104 | 0.52            |
| 141 | E97          | 64       | F    | -0.86           | 37  | -0.24            | 77  | 0.52           | 72  | 0.61            |
| 142 | E77          | 55       | F    | -0.89           | 133 | -0.69            | 86  | 0.49           | 103 | 0.52            |
| 143 | E92          | 61       | F    | -0.89           | 42  | -0.25            | 93  | 0.48           | 87  | 0.56            |
| 144 | E69          | 64       | B    | -0.89           | 143 | -0.83            | 111 | 0.43           | 81  | 0.58            |
| 145 | E67          | 65       | C    | -0.89           | 64  | -0.39            | 103 | 0.45           | 57  | 0.66            |

ALL INVESTMENT POOLS  
RANKING BY EFFICIENCY AND BETA  
FOR THE PERIOD ENDING JUNE 30, 1982

| #   | CODE     | EQ | SIZE | 5 YEAR  | #   | 10 YEAR | #   | 5 YEAR | #   | 10 YEAR |
|-----|----------|----|------|---------|-----|---------|-----|--------|-----|---------|
|     | NAME     | %* |      | EFFIC   |     | EFFIC   | #   | BETA   |     | BETA    |
| 146 | C1       | 67 | D    | -0.90 % |     | N/A %   | 122 | 0.38 % |     | N/A %   |
| 147 | E9       | 32 | E    | -0.91   |     | N/A     | 148 | 0.27   |     | N/A     |
| 148 | C97      | 44 | E    | -0.92   | 96  | -0.48   | 81  | 0.51   | 141 | 0.25    |
| 149 | E28      | 17 | A    | -0.96   | 136 | -0.72   | 165 | 0.18   | 131 | 0.37    |
| 150 | C9       | 51 | A    | -0.97   | 109 | -0.54   | 147 | 0.28   | 118 | 0.45    |
| 151 | C75      | 56 | E    | -0.98   | 59  | -0.36   | 135 | 0.34   | 40  | 0.74    |
| 152 | E31      | 44 | A    | -1.00   |     | N/A     | 126 | 0.37   |     | N/A     |
| 153 | E17      | 60 | B    | -1.00   | 92  | -0.47   | 104 | 0.45   | 92  | 0.55    |
| 154 | C50      | 48 | F    | -1.01   | 126 | -0.64   | 143 | 0.29   | 115 | 0.46    |
| 155 | C46      | 33 | D    | -1.01   | 141 | -0.81   | 145 | 0.28   | 138 | 0.30    |
| 156 | E35      | 59 | C    | -1.08   | 145 | -0.87   | 159 | 0.22   | 122 | 0.42    |
| 157 | C67      | 27 | E    | -1.09   | 93  | -0.48   | 183 | 0.05   | 121 | 0.43    |
| 158 | C17      | 69 | C    | -1.11   | 111 | -0.55   | 131 | 0.35   | 112 | 0.47    |
| 159 | C12      | 88 | F    | -1.13   |     | N/A     | 181 | 0.07   |     | N/A     |
| 160 | C86      | 38 | D    | -1.13   | 50  | -0.29   | 164 | 0.19   | 140 | 0.27    |
|     | COM-FDBD | 0  | D    | -1.14   |     | N/A     |     | -0.43  |     | N/A     |
| 161 | C16      | 57 | C    | -1.15   | 122 | -0.61   | 118 | 0.39   | 70  | 0.63    |
| 162 | C39      | 45 | D    | -1.16   | 131 | -0.68   | 127 | 0.37   | 64  | 0.65    |
| 163 | C73      | 50 | F    | -1.18   |     | N/A     | 137 | 0.32   |     | N/A     |
| 164 | C89      | 24 | D    | -1.18   |     | N/A     | 167 | 0.16   |     | N/A     |
| 165 | E32      | 47 | C    | -1.19   | 79  | -0.43   | 141 | 0.29   | 93  | 0.55    |
| 166 | E39      | 52 | D    | -1.25   | 129 | -0.68   | 133 | 0.35   | 90  | 0.56    |
| 167 | E90      | 51 | A    | -1.26   |     | N/A     | 134 | 0.34   |     | N/A     |
| 168 | C78      | 42 | D    | -1.31   | 150 | -1.13   | 120 | 0.39   | 113 | 0.47    |
| 169 | C83      | 33 | D    | -1.34   | 137 | -0.74   | 168 | 0.15   | 130 | 0.38    |
| 170 | C3       | 57 | B    | -1.39   | 123 | -0.63   | 132 | 0.35   | 96  | 0.54    |
| 171 | E23      | 44 | F    | -1.43   | 146 | -0.89   | 169 | 0.15   | 124 | 0.41    |
| 172 | C92      | 23 | E    | -1.49   | 132 | -0.69   | 174 | 0.12   | 126 | 0.38    |
|     | SALOMON  |    |      | -1.50   |     | -0.63   |     | -0.43  |     | -0.04   |
| 173 | C5       | 30 | D    | -1.52   | 149 | -1.09   | 157 | 0.23   | 142 | 0.24    |
|     | LEH-KUHN |    |      | -1.53   |     | N/A     |     | -0.39  |     | N/A     |
| 174 | C36      | 41 | E    | -1.56   |     | N/A     | 156 | 0.23   |     | N/A     |
| 175 | E58      | 43 | D    | -1.61   | 82  | -0.44   | 189 | -0.05  | 145 | 0.20    |
| 176 | C79      | 57 | D    | -1.65   | 139 | -0.76   | 140 | 0.31   | 117 | 0.45    |
| 177 | C84      | 29 | C    | -1.67   | 144 | -0.83   | 125 | 0.37   | 108 | 0.49    |
| 178 | C37      | 24 | F    | -1.70   |     | N/A     | 191 | -0.06  |     | N/A     |
| 179 | E78      | 44 | D    | -1.71   | 117 | -0.59   | 152 | 0.25   | 119 | 0.44    |
| 180 | E87      | 5  | F    | -1.85   | 104 | -0.52   | 195 | -0.27  | 149 | 0.04    |
| 181 | E13      | 35 | D    | -1.96   | 134 | -0.70   | 154 | 0.24   | 128 | 0.38    |
| 182 | E109     | 24 | F    | -2.03   | 127 | -0.65   | 179 | 0.09   | 127 | 0.38    |
| 183 | C33      | 48 | F    | -2.03   |     | N/A     | 153 | 0.24   |     | N/A     |
| 184 | E41      | 40 | E    | -2.08   | 148 | -0.99   | 163 | 0.20   | 134 | 0.31    |
| 185 | C62      | 70 | D    | -2.15   |     | N/A     | 188 | -0.04  |     | N/A     |
| 186 | C47      | 45 | D    | -2.15   | 114 | -0.58   | 150 | 0.26   | 98  | 0.53    |
| 187 | C49      | 51 | D    | -2.19   | 147 | -0.97   | 158 | 0.22   | 125 | 0.40    |
| 188 | C10      | 52 | F    | -2.33   |     | N/A     | 190 | -0.06  |     | N/A     |
| 189 | C64      | 20 | E    | -2.35   | 113 | -0.56   | 166 | 0.17   | 129 | 0.38    |
| 190 | C91      | 51 | F    | -2.38   | 128 | -0.66   | 161 | 0.21   | 101 | 0.52    |



ALL INVESTMENT POOLS  
RANKING BY EFFICIENCY AND BETA  
FOR THE PERIOD ENDING JUNE 30, 1982

| #       | CODE<br>NAME | EQ<br>%* | SIZE | 5 YEAR<br>EFFIC | #   | 10 YEAR<br>EFFIC | #   | 5 YEAR<br>BETA | #   | 10 YEAR<br>BETA |
|---------|--------------|----------|------|-----------------|-----|------------------|-----|----------------|-----|-----------------|
| 191     | E82          | 38       | F    | -2.57%          | 130 | -0.68 %          | 180 | 0.08 %         | 143 | 0.23%           |
| 192     | C19          | 49       | D    | -2.70           |     | N/A              | 170 | 0.15           |     | N/A             |
| 193     | E88          | 14       | F    | -2.99           | 140 | -0.76            | 192 | -0.17          | 148 | 0.06            |
| 194     | E83          | 50       | F    | -3.11           | 142 | -0.82            | 176 | 0.11           | 139 | 0.30            |
| 195     | E22          | 38       | D    | -3.34           | 125 | -0.63            | 178 | 0.09           | 137 | 0.30            |
| AVERAGE |              | 0        |      | -0.64%          | 0   | -0.39 %          | 0   | 0.50 %         | 0   | 0.61%           |



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EXHIBIT IV

INSTITUTIONS WHICH APPLY A SPENDING FORMULA FOR BUDGETING PURPOSES

| <u>Institution</u>            | <u>1981-82<br/>Spending Rate Formula</u>                                                         | <u>Spending Rate Formula<br/>Change from Prior Year</u> |
|-------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| The Academy of the New Church | 7% increase in income over the previous year. If not earned, taken from appreciation.            | No Change                                               |
| Alfred University             | 6% of 3-year moving average of market value.                                                     | No Change                                               |
| Alma College                  | Increase by 5%                                                                                   | Spent yield in 1981                                     |
| Boston University             | 5% based on a 5-year moving average.                                                             | No Change                                               |
| Brown University              | 4½-5½% of prior year average quarterly market value.                                             | No Change                                               |
| Bryn Mawr College             | Designated amount increased by a specific growth rate.                                           | No Change                                               |
| Bucknell University           | 5% of 3-year moving average.                                                                     | No Change                                               |
| California Institute          | 5 3/4% of market value of the pooled endowment portfolio averaged over a prior 3-year period.    | No Change                                               |
| Carleton College              | 6% of the 5-year average market value of endowment assets computed quarterly set back one year.  | No Change                                               |
| Case Western Reserve          | 6.3% of 7/1/79 market value adjusted for additions.                                              | 6% used in 1981                                         |
| Claremont McKenna College     | 6% of 2½-year adjusted average market value.                                                     | No Change                                               |
| Clark University              | 5% of a 20-quarter moving average.                                                               | No Change                                               |
| Colby College                 | 5% of 5-year moving average adjusted for gifts.                                                  | Spent yield in 1981                                     |
| Colgate University            | Endowment income increased at 3% annually until it falls to 5½% of market, then increased at 6%. | No Change                                               |
| College of William and Mary   | 5½% of preceeding calendar year-end market value.                                                | No Change                                               |

| <u>Institution</u>                   | <u>1981-82<br/>Spending Rate Formula</u>                                              | <u>Spending Rate Formula<br/>Change from Prior Year</u>                   |
|--------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| College of Wooster                   | 7% of 12-quarter average market value of total return portfolios.                     | No Change                                                                 |
| Columbia University-Teachers College | 10% Spending                                                                          | 7% Spending in 1981                                                       |
| Cooper Union                         | Assumption of a longer term combined total return of 9% and use of 5% for operations. | No Change                                                                 |
| Cornell College                      | 6% of June 30 market value                                                            | No Change                                                                 |
| Cornell University                   | 7% above prior year spending                                                          | Spent yield in 1981                                                       |
| Dartmouth College                    | Greater of, (1) 5% of market or (2) lesser of 80% of yield or 5½% of market.          | Spend a specific dollar amount increased by trustee vote over prior year. |
| Davidson College                     | 5% of prior 3-year average market value.                                              | No Change                                                                 |
| Doane College                        | 5% of the average market value on June 30 of the last 3 years.                        | No Change                                                                 |
| Drew University                      | 5% of the average market value of preceeding 3 years.                                 | No Change                                                                 |
| Duke University                      | Spend 4% of prior 12 quarter average.                                                 | 4% of the market objective                                                |
| Earlham College                      | 5% of 12 quarter moving average set back two quarters.                                | No Change                                                                 |
| Eastern Michigan Univ.               | 10% of the previous fiscal year-end market value.                                     | No Change                                                                 |
| Furman University                    | 5% of market value.                                                                   | No Change                                                                 |
| Georgetown University                | 4½% of market value.                                                                  | No Change                                                                 |
| Grinnell College                     | 22% of operational budget                                                             | Spent yield in 1981                                                       |
| Haverford College                    | 5% of four quarter average market value.                                              | 5% of 5-year average in 1981.                                             |
| Hope College                         | 8% of year-end market.                                                                | Spent yield in 1981                                                       |
| Indiana University                   | 5% of last 8 quarter's moving average.                                                | No Change                                                                 |

| <u>Institution</u>                     | <u>1981-82<br/>Spending Rate Formula</u>                                                                                                                                                | <u>Spending Rate Formula<br/>Change from Prior Year</u> |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Kenyon College                         | 5% of market value calculated at beginning of fiscal year.                                                                                                                              | No Change                                               |
| Lafayette College                      | 5% of unrestricted endowment.                                                                                                                                                           | No Change                                               |
| Lehigh University                      | Base amount increased 5% annually, adjusted for additions.                                                                                                                              | Spent yield in 1981                                     |
| Marquette University                   | Withdraw an amount equal to 5% of a 3-year moving average of the total market value at June 30 for the latest three fiscal years, plus current year additions on a time-weighted basis. | No Change                                               |
| Oberlin College                        | Increase 8% annually, as long as not above 5.5% of preceding calendar year average market value.                                                                                        | No Change                                               |
| Occidental College                     | 5% of 3 year moving average.                                                                                                                                                            | No Change                                               |
| Ohio Northern University               | 6% of beginning year market value.                                                                                                                                                      | No Change                                               |
| Ohio Wesleyan University               | Spend yield of 5%                                                                                                                                                                       | No Change                                               |
| Oregon State Board of Higher Education | 7% of a 5-year moving average.                                                                                                                                                          | No Change                                               |
| Otterbein College                      | 5% of a 3-year moving average.                                                                                                                                                          | No Change                                               |
| Pomona College                         | 5.5% of 12 quarter average market value.                                                                                                                                                | No Change                                               |
| Princeton University                   | 6% increase in net income.                                                                                                                                                              | No Change                                               |
| Reed College                           | 5% of 13-quarter average moving unit value.                                                                                                                                             | No Change                                               |
| Rensselaer Polytechnic Institute       | 8% total return formula                                                                                                                                                                 | Income stabilization plan.                              |
| Rhode Island School of Design          | 5% of moving 3-year market value lagged 6 months.                                                                                                                                       | One year lag in 1981.                                   |
| Rockhurst College                      | 8% of market value                                                                                                                                                                      | N/A                                                     |
| Saint Mary's College                   | 5% of previous 3 calendar year-end market values.                                                                                                                                       | No Change                                               |

| <u>Institution</u>           | <u>1981-82<br/>Spending Rate Formula</u>                                                                                                                                                           | <u>Spending Rate Formula<br/>Change from Prior Years</u> |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Simmons College              | 5% of moving 3-year market value lagged 1 year.                                                                                                                                                    | No Change                                                |
| Smith College                | 6% of the average market value of 12 quarters ending March 31, preceding the start of the next June 30 fiscal year.                                                                                | No Change                                                |
| Southwestern at Memphis      | 6% of beginning year market value.                                                                                                                                                                 | No Change                                                |
| Spelman College              | 5½% of the average value of four prior quarters, but not less than prior year spending.                                                                                                            | No Change                                                |
| Stanford University          | Target rate of 4.75%, but spending above or below this rate permitted. Currently, income is being reinvested.                                                                                      | No Change                                                |
| State University of New York | 5½% of market value.                                                                                                                                                                               | No Change                                                |
| University of Chicago        | 5% of moving average market values of six of the last ten years (adj. for gifts) ending prior to the start of the fiscal year with two highest and the two lowest years excluded from the average. | No Change                                                |
| University of Maryland       | Lesser of dividends and interest received or 5% of 5 year rolling market value.                                                                                                                    | No Change                                                |
| University of Miami          | 5% of prior 3 year average market value.                                                                                                                                                           | No Change                                                |
| University of Missouri       | 5% of average quarterly market value.                                                                                                                                                              | No Change                                                |
| University of North Carolina | Spending adjusted by institutional inflation index up to a maximum.                                                                                                                                | No Change                                                |
| University of Notre Dame     | Based on prior years earnings per unit trend.                                                                                                                                                      | No Change                                                |
| University of Pennsylvania   | 6.6% of 3 year moving average set back 1 year.                                                                                                                                                     | Spent yield in 1981                                      |
| University of Richmond       | 5% of 3 year moving average market value.                                                                                                                                                          | No Change                                                |

| <u>Institution</u>                       | <u>1981-82<br/>Spending Rate Formula</u>                                                             | <u>Spending Rate Formula<br/>Change from Prior Years</u> |
|------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| University of<br>Tennessee (Chattanooga) | 85% of net income                                                                                    | No Change                                                |
| University of Virginia                   | 4% increase in income.                                                                               | No Change                                                |
| Vanderbilt University                    | 5.5% of 5-year average<br>market value adjusted for<br>additions.                                    | No Change                                                |
| Wellesley College                        | Spend a specific amount.                                                                             | No Change                                                |
| Wells College                            | Spend a fixed amount.                                                                                | No Change                                                |
| Wentworth Institute of<br>Technology     | 80% of estimated income                                                                              | No Change                                                |
| Wesleyan University                      | Board approves a dollar<br>reliance figure for support<br>of operations and capital<br>expenditures. | No Change                                                |
| Wheaton College                          | 5% of beginning market<br>value.                                                                     | No Change                                                |
| Worcester Polytechnic<br>Institute       | 6% of prior two years<br>average market value.                                                       | No Change                                                |
| Yale University                          | 4.5% of five-year moving<br>average.                                                                 | No Change                                                |



EXHIBIT VINDEX OF INVESTMENT MANAGERS (1)

| <u>Institution</u>            | <u>Investment Managers</u>                                                                                                        |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Academy of the New Church     | Pitcairn Incorporated (S,B)                                                                                                       |
| Agnes Scott College           | Trust Company of Georgia (S,B)                                                                                                    |
| Alfred University             | BEA Associates, Inc. (S,B)<br>Reich & Tang, Inc. (S)                                                                              |
| Allegheny College             | Standish, Ayer & Wood, Inc. (S,B)                                                                                                 |
| Alma College                  | Mitchell Hutchins, Inc. (S)<br>Paine Webber (S,B)                                                                                 |
| American University of Beirut | Fiduciary Trust (S,B)                                                                                                             |
| Amherst College               | Miller, Anderson & Sherrerd (S,B)<br>Grantham, Mayo, Van Otterloo & Co.,<br>Inc. (S,B)<br>Morgan Stanley Asset Management Co. (B) |
| Arizona State University      | Northern Trust Company of Arizona (S,B)                                                                                           |
| Auburn University             | Investment Counsel Company (S,B)<br>Scudder Stephens & Clark (S,B)                                                                |
| Babson College                | Babson Reports (S,B)                                                                                                              |
| Baldwin-Wallace College       | Internally Managed                                                                                                                |
| Bates College                 | Internally Managed                                                                                                                |
| Baylor College of Medicine    | Baptist Foundation of Texas (S,B)<br>Fayez Sarofim & Company (S,B)<br>Internally Managed                                          |
| Baylor University             | Baptist Foundation of Texas (S,B)                                                                                                 |
| Berea College                 | Century Capital Associates (S)<br>Delaware Investment Advisers (S)<br>Harris Bank of Chicago (B)<br>J.W. Seligman & Company (S)   |
| Berry College                 | Trust Company of Georgia (S,B)                                                                                                    |
| Birmingham-Southern College   | First National Bank of Birmingham (S,B)<br>Central Bank of Birmingham (S,B)<br>Birmingham Trust National Bank (S,B)               |
| Boston University (2)         | Endowment Management & Research (S,B)<br>Frontier Capital Management Co. (S)<br>Essex Investment Management Co. (S)               |



InstitutionInvestment Managers

Brandeis University

Rothschild Capital Management (S)  
 Brundage, Story & Rose (S)  
 Essex Investment Management (S,B)  
 Boston Company (B)

Brown University

Endowment Management & Research (S)  
 Essex Investment Management (S)  
 Scudder, Stevens & Clark (B)  
 Brundage, Story & Rose (S)  
 Campbell Advisors (S)

Bryant College of Business Admin.

Martin Sosnoff (S,B)  
 Colonial Consulting (S,B)

Bryn Mawr College

J & W Seligman (S,B)  
 Lombard Odier (S,B)

Bucknell University

Internally Managed

California Institute of Technology

Endowment Management & Research (S,B)  
 Favez Sarofim (S,B)  
 IDS Advisory (S,B)  
 Endowment Management & Research (S,B)

Canisius College

Windsor Fund (S)

Carleton College

Northwestern National Bank of  
 Minneapolis (S,B)  
 Alliance Capital Management (S,B)  
 The St. Paul Companies (B)  
 Essex Investment Management Co. (S,B)

Carnegie-Mellon University

Guild Investment Management (S,B)  
 BEA Associates (S,B)  
 Capital Guardian Trust Co. (S)  
 Delaware Investment Advisers, Inc. (S)  
 T. Rowe Price Associates (S)  
 Equity Research Associates (S)

Case Western Reserve University

Luther King Capital Management (S)  
 Central National Bank-Cleveland (S,B)  
 Ameritrust (S,B)  
 William D. Witter (S)  
 National City Bank of Cleveland (S,B)  
 State Street Research & Management (B)

Chapman College

Internally Managed

Claremont McKenna College

Mutual Fund Management (S,B)  
 Everett Harris & Company (S,B)  
 Cramblit & Carney (S,B)

Clark University

Thorndike, Doran, Paine & Lewis (S,B)  
 Essex Management (S,B)

InstitutionInvestment Managers

Clarkson College of Technology

Brundage, Story & Rose (S,B)  
William D. Witter (S,B)

Colby College

T. Rowe Price Associates (S,B)  
J & W Seligman (S)

Colgate University

Miller, Anderson & Sherrerd (S)  
Shufro, Rose & Ehrman (S)  
American Fletcher National Bank (B)  
Bessemer Trust Company First  
National Bank Palm Beach (S,B)

College of William &amp; Mary

Capitoline Investment Services (S,B)  
Fort Hill Investors Management Corp.  
(S,B)

College of Wooster

Woodbyne Corporation (S)  
Carnegie Capital Advisors (S)  
Fiduciary Trust Company (B)  
David J. Greene & Company (S)

Colorado College

John W. Bristol &amp; Company, Inc. (S,B)

Columbia University

Garrison Keough (S)  
Internally ManagedColumbia University-Teachers  
CollegeFiduciary Trust Company (S,B)  
Morgan Stanley Asset Management (S,B)  
Connecticut Bank & Trust (S,B)  
Glickenhous & Company (S,B)

Connecticut College

Hartford National Bank (S,B)

Cooper Union

Miller, Anderson & Sherrerd (S,B)  
Cooke & Bieler (S,B)  
United States Trust (S,B)

Cornell College

Fayez Sarofim &amp; Company (S,B)

Cornell University

Internally Managed

Dartmouth College

State Street Research & Management (B)  
Delaware Investment Advisers (S)  
Pioneering Management Corp. (S)  
T. Rowe Price Associates (S)

Davidson College

Wentworth, Hauser & Violich (B)  
Fayez Sarofim & Company (S,B)  
Lexington Management Company (S,B)

Denison University

MacKay Shields Financial Corp. (S,B)  
National City Bank (S,B)

Dickinson College

American Bank &amp; Trust Company (S,B)

| <u>Institution</u>                                 | <u>Investment Managers</u>                                                                                                 |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Doane College                                      | Hartford National Bank (S,B)<br>National Bank of Commerce (S,B)<br>First National Bank (S,B)                               |
| Drake University                                   | Harris Trust & Savings Bank-Chicago (S,B)<br>Iowa Des Moines National Bank (B)                                             |
| Drew University                                    | Smith Barney Harris Upham & Co. (S,B)<br>J & W Seligman (S,B)                                                              |
| Duke University                                    | T. Rowe Price (S,B)<br>Paine Webber Mitchell Hutchins (S,B)                                                                |
| Earlham College                                    | Delaware Investment Advisers (S)<br>Putnam Capital Companies (S,B)<br>Stein Roe & Farnham (S,B)                            |
| Eastern Michigan University                        | Janny Montgomery Scott Inc. (S,B)                                                                                          |
| Endowment Association of College of William & Mary | Fort Hill Investors Management (S,B)<br>Capitoline Investment (S,B)                                                        |
| Franklin & Marshall College                        | Mercantile Safe Deposit & Trust (B)<br>Ruane Cuniff & Company Inc. (S)                                                     |
| Furman University                                  | Thorndike, Doran, Paine & Lewis (S)<br>Trevor, Stewart, Burton & Jacobsen, Inc. (S)                                        |
| George Washington University                       | David L. Babson & Company (S,B)                                                                                            |
| Georgetown University (2)                          | Warburg Pincus Counselors (S,B)<br>Fayez Sarofim & Company (S,B)<br>Riggs National Bank (S,B)<br>Weiss, Peck & Greer (S,B) |
| Grinnell College                                   | Ruane, Cunniff & Company Inc. (S,B)<br>Pacific Financial Research (S,B)                                                    |
| Hamilton College                                   | Internally Managed                                                                                                         |
| Hampton Institute                                  | Smith Barney Harris Upham & Co. (S,B)                                                                                      |
| Harvard University                                 | Internally Managed<br>Scudder Stevens & Clark (B)<br>Eberstadt Asset Management (S)<br>York Management (S)                 |
| Haverford College                                  | United States Trust (S,B)<br>J. W. Bristol (S)                                                                             |
| Hendrix College                                    | Scudder Stevens & Clark (S,B)                                                                                              |
| Hope College                                       | Burnham Walling & Company (S,B)<br>First Michigan Bank & Trust (B)                                                         |

InstitutionInvestment Managers

|                                  |                                                                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Howard University                | John W. Bristol & Co., Inc. (S,B)<br>Investment Advisors Inc. (S,B)                                                             |
| Indiana University               | Indiana National Bank (S,B)<br>American Fletcher National Bank (S,B)<br>Merchants National Bank (S,B)<br>State of Indiana (S,B) |
| John Hopkins University          | Miller, Anderson & Sherrerd (S,B)<br>Weiss Peck & Greer (S)<br>Allen & Co. (S)                                                  |
| Kalamazoo College                | Delaware Investment Advisers (S,B)<br>Putnam Administrative Services Co. (S)<br>The Fletcher Group (S)                          |
| Kenyon College (2)               | Bernstein McCaulay (S,B)                                                                                                        |
| Knox College (2)                 | Hotchkiss & Peckenpaugh Inc. (S)                                                                                                |
| Lafayette College                | Thorndike, Doran, Paine & Lewis (S,B)<br>Capital Guardian Trust Co. (S,B)                                                       |
| Lawrence University              | Endowment Management & Research Corp.<br>(S,B)<br>Windsor Securities (S)<br>First National Bank of Appleton (S,B)               |
| Lehigh University                | First Manhattan Company (S)<br>General American Investors (S)<br>Capital Guardian Trust Co. (S)                                 |
| Loyola University of Chicago     | Internally Managed                                                                                                              |
| McGill University                | Royal Trust Company (S,B)<br>Beutal Goodman (S,B)<br>Bolton Tremblay (S,B)                                                      |
| Marquette University             | Heritage Investment Advisors, Inc. (S,B)<br>Marshall & Ilsley Bank (S,B)                                                        |
| Massachusetts Institute of Tech. | Thorndike, Doran, Paine & Lewis, Inc.<br>(S,B)                                                                                  |
| Medical College of Pennsylvania  | Cooke & Bieler (S,B)                                                                                                            |
| Mercer University                | Internally Managed                                                                                                              |
| Michigan State University        | Scudder, Stevens & Clark (S,B)<br>Detroit Bank & Trust Company (S,B)                                                            |
| Middlebury College               | Beck, Mack & Oliver (S,B)<br>Campbell Advisors Inc. (S,B)                                                                       |

| <u>Institution</u>                  | <u>Investment Managers</u>                                                                                                                                                                             |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monmouth College                    | New Court Management Inc. (S,B)                                                                                                                                                                        |
| Moravian College                    | First Valley Bank (S,B)<br>McGlinn Investments Inc. (S,B)                                                                                                                                              |
| Mt. Holyoke College                 | Scudder, Stevens & Clark (S,B)                                                                                                                                                                         |
| Muhlenberg College                  | Scudder, Stevens & Clark (S,B)<br>McGlinn & Associates (S,B)                                                                                                                                           |
| Newberry College                    | South Carolina National Trust (S,B)                                                                                                                                                                    |
| New York University                 | Harris Bank & Trust (B)<br>Thorndike, Doran, Paine & Lewis (B)<br>U.S. Trust Company (B)<br>Warburg, Pincus, Counselors (S)<br>Hellman Jordan Management Co. (S)<br>Fischer, Francis, Tree & Watts (B) |
| North Carolina State University (2) | Wachovia Bank & Trust Company (S,B)                                                                                                                                                                    |
| Northwestern University             | Internally Managed                                                                                                                                                                                     |
| Norwich University                  | Morgan Guaranty Trust Company (S,B)                                                                                                                                                                    |
| Oberlin College                     | Capital Guardian Trust Company (S)<br>Wertheim Asset Management Services (S,B)<br>First National Bank of Atlanta (B)<br>National City Bank of Cleveland (S,B)                                          |
| Occidental College (2)              | Morgan Guaranty (S,B)<br>Scudder, Stevens & Clark (S,B)<br>Decatur Income Fund (S)<br>Investment Company of America (S)<br>Putnam Investors Fund (S)                                                   |
| Ocean County College                | Butcher and Singer (S,B)                                                                                                                                                                               |
| Ohio Northern University            | BancOhio Trust Department (S,B)                                                                                                                                                                        |
| Ohio State University               | Neuberger Corp. Mutual Fund (S)<br>Huntington Investment Company (B)<br>Siebel Capital Management (S)<br>Chicago Corp. (S)                                                                             |
| Ohio University                     | Andrecom Advisors, Inc. (S,B)<br>Brundage, Story & Rose (S,B)<br>Tallasi Management Co. (S)                                                                                                            |
| Ohio Wesleyan University            | Technological Investors Management (S)<br>Morgan Guaranty Trust (S,B)<br>Ivy Fund (S,B)                                                                                                                |
| Oregon State Board of Higher Educ.  | Dodge & Cox (S,B)                                                                                                                                                                                      |



InstitutionInvestment Managers

Otterbein College

BancOhio Trust Department (S,B)  
Robinson Humphrey (S)

Pennsylvania State University

Mellon Bank (S,B)

Philadelphia College of Pharmacy  
and Science

MH/Edie Investment Counsel (S,B)

Philadelphia College of Textiles  
and ScienceGirard Bank (S,B)  
Philadelphia National Bank (S,B)

Pomona College

Grantham Mayo (S)  
Loomis-Sayles (S,B)  
Scudder, Stevens & Clark (S,B)  
General American (S)

Pratt Institute

U.S. Trust Company (B)  
Neuberger & Berman (S,B)  
William Witter Company (S,B)

Princeton University

John Bristol & Company (S)  
Vilas-Fisher Associates LTD (S)  
Capital Guardian Trust Company (S)  
Atlantic Capital Management (S)  
Scudder, Stevens & Clark (B)  
Essex Investment Management Co. (S)

Radcliffe College

Rosenberg Capital Management (B)  
Beck, Mack & Oliver (S)  
General American Investors (S)  
Fiduciary Trust Company (S,B)

Reed College

Schroeder Capital Management (S,B)

Rensselaer Polytechnic Institute

Miller, Anderson & Sherrerd (S)  
Brundage, Story & Rose (S,B)  
Campbell Advisors (S)

Rhode Island School of Design

Endowment Management & Research, Inc.  
(S,B)  
Essex Investment Management Co. (S,B)  
Beck, Mack & Oliver (S,B)

Rice University

Fayez-Sarofim &amp; Company (S,B)

Rochester Institute of Technology

T. Rowe Price Associates (B)  
Delaware Investment Advisers (S,B)  
Pioneering Management Corp. (S)  
Investors Research Corp. (S)  
Kemper Financial Services (S)  
Putnam Management Capital Co. (S)



InstitutionInvestment Managers

Rockefeller University

Rockefeller &amp; Company (S,B)

Rockhurst College

Internally Managed

Rollins College

Scudder, Stevens & Clark (S,B)  
 Barnett Bank of Winter Park (S,B)  
 Trust Company of Florida (S,B)  
 ComBank of Winter Park (S,B)

Russell Sage College

State Bank of Albana (S,B)  
 Marine Midland Bank (S,B)

Rutgers, The State University

Chemical Bank of New York (S,B)

St. Louis University

Kemper Financial Services (S)  
 Pioneering Management Corp. (S)  
 Centerre Trust Company (S)  
 Boatmen's National Bank of St. Louis (B)  
 Mercantile Trust Company (B)  
 Neuberger & Berman Management (S)  
 Friess Associates Inc. (S)  
 Dimensional Fund Advisors Inc. (S)

St. Mary's College

National Bank & Trust (B)  
 Brundage, Story & Ross (S)  
 Harris Bank (B)  
 First Bank & Trust (S)  
 St. Joseph Bank (E)

St. Norbert College

(Externally Managed -- Endowment  
 Held Under Trust Agreements)

Simmons College

Harbor Capital Management Company (S,B)

Skidmore College (2)

Tallasi Management Co. (S)  
 Value Line Asset Management (S)  
 Lincoln 1st Bank-Trust (S,B)

Smith College

Morgan Guaranty Trust Co. of N.Y. (S)  
 Capital Guardian Trust Company (S)  
 Beck, Mack & Oliver (S)  
 Kidder Peabody & Company (S)

Southern Methodist University (2)

Fayez Sarofim &amp; Company (S,B)

Southwestern at Memphis

National Bank of Commerce (B)  
 Union Planters (S,B)  
 1st Tennessee Bank (S,B)  
 Vaughn Nelson Hargrove (S,B)  
 1st National Bank-Mobile (S,B)

Southwestern University

Fayez Sarofim &amp; Company (S,B)

InstitutionInvestment Managers

|                              |                                                                                                                                   |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Spelman College              | William D. Witter Inc. (S,B)<br>Weiss, Peck & Greer--New York (S,B)                                                               |
| Stanford University          | Capital Guardian Trust Company (S)<br>G.T. Management (S)<br>Rosenberg Capital Management (B)<br>Grantham, Mayo, Van Otterloo (S) |
| State University of New York | Manufacturers & Traders Trust Co. (S,B)<br>Marine Midland Bank (S,B)                                                              |
| Sweet Briar College          | Capitoline Investment Services (S,B)                                                                                              |
| Syracuse University          | Internally Managed                                                                                                                |
| Temple University            | Cole, Yeager & Wood (S)<br>T. Rowe Price Associates (S)                                                                           |
| Thomas Jefferson University  | Stratton Management Co. (S,B)                                                                                                     |
| Trinity College (Conn.)      | Hartford National Bank & Trust Co. (S,B)                                                                                          |
| Trinity College (Wash, D.C.) | American Security Bank (S,B)                                                                                                      |
| Tulane University            | Internally                                                                                                                        |
| University of Akron          | First National Bank of Akron (S,B)<br>BancOhio (S,B)<br>Oppenheimer Capital Corp. (S,B)<br>National City Bank of Akron (B)        |
| University of Alabama System | Invesco Capital Management Inc. (S,B)<br>Thorndike, Doran, Paine & Lewis (S,B)                                                    |
| University of Arizona        | Internally Managed                                                                                                                |
| University of Arkansas       | Stephens Inc. (S,B)<br>Internally Managed                                                                                         |
| University of Chicago        | Internally Managed                                                                                                                |
| University of Cincinnati     | Scudder, Stevens & Clark (S)<br>Delaware Investment Advisers (S)<br>Johnson Investments (B,S)<br>Fifth Third Bank (S,B)           |
| University of Connecticut    | Internally Managed                                                                                                                |
| University of Dayton         | Boston Company Financial Strategies,<br>Inc. (S,B)                                                                                |
| University of Delaware       | Internally Managed<br>Bank of Delaware (S)                                                                                        |

InstitutionInvestment Managers

University of Denver

Internally Managed  
 United Bank of Denver  
 First National Bank of Denver (S,B)  
 Colorado National Bank (S,B)  
 Central Bank & Trust (S,B)  
 IntraWest Bank of Denver (S,B)  
 Mountain States Bank (B)

University of Evansville

Internally Managed

University of Houston System (2)

Fayez Sarofim &amp; Company (S,B)

University of Iowa Foundation

First National Bank of Iowa City (S,B)  
 Putnam Capital Management (S,B)

University of Maine

Loomis, Sayles &amp; Company (S,B)

University of Maryland

Thorndike, Doran, Paine &amp; Lewis (S,B)

University of Massachusetts

Internally Managed

University of Miami

Invesco Capital Management (S,B)  
 Southeast Bank (S,B)

University of Michigan

National Bank of Detroit (S,B)

University of Mississippi (2)

Nicholas B. Kronwall Tucson, Arizona(S)

University of Missouri

The Boatmen's National Bank of  
 St. Louis (S,B)

University of Nebraska

Omaha National Bank (S,B)

University of Nevada System

1st Interstate Bank (S,B)  
 Security National Bank (S,B)  
 Nevada National Bank (S,B)

University of North Carolina

Alliance Capital Management (S)  
 Reich & Tang (S)  
 First Union National Bank (S)  
 NCBW Wachovia Bank & Trust (B)

University of Notre Dame

Forstman-Leff-Degnan (B)  
 Trust Company of the West (B)  
 Brundage, Story & Rose (S)  
 Stein, Roe & Farnham (S)  
 Capital Guardian Trust Company (S)  
 Luther King Capital (S)

University of Pennsylvania

Internally Managed

InstitutionInvestment Managers

University of Pittsburgh

Hoisington (B)  
 Mellon Bank (B)  
 Pittsburgh National Bank (B)  
 Neuberger & Berman (S)  
 Brundage, Story & Rose (S)  
 Jennison Associates (S)

University of Puget Sound

Pringle, Flinn, Elvins & Donahue (S,B)  
 Badgley and Phelps (S,B)

University of Richmond

Capital Guardian Management (S)  
 Delaware Investment Advisers (S)  
 Pioneering Management Corp. (S)  
 Wheat Advisory Services (S)  
 Putnam Advisory Services (B)

University of Santa Clara (2)

McCullough &amp; Andrew Inc. (S,B)

University of Scranton

Northeastern Bank of Pennsylvania (S,B)

University of Southern California

Fayez Sarofim & Company (S)  
 Western Asset Management Co. (B)

University of Tampa

John M. Blewer, Inc. (S,B)

University of Tennessee  
Chattanooga

American National Bank (S,B)  
 First Tennessee (S,B)

University of Tennessee (2)  
Knoxville

Lionel D. Edie Company (S)

University of Texas System

Fayez-Sarofim (S,B)  
 Internally Managed  
 Alliance Capital Management (S,B)  
 Bernstein-Macaulay (S,B)  
 Capital Guardian (S,B)

University of Tulsa

Bank of Oklahoma (S,B)  
 First National Bank of Tulsa (S,B)

University of Utah

Internally Managed

University of Vermont

Brundage, Story &amp; Rose (S,B)

University of Virginia

Fayez Sarofim & Company (B)  
 General American Investments (S)  
 Brundage, Story & Rose (S)  
 John W. Bristol (S)  
 William A. Hobbs (S,B)  
 American National Bank Chattanooga (S,B)  
 United Virginia Bank (S,B)

University of Wisconsin System

Heritage Investment Advisors (S,B)  
 State of Wisconsin Investment Board

InstitutionInvestment Managers

Vanderbilt University

Starbuck, Tisdale & Williams (B)  
 Pacific Investment (B)  
 Trust Company of Georgia (B)  
 Capital Guardian (S)  
 Manufacturers Hanover (S)  
 Analytic Investors (S)  
 Invesco Capital Management (S)

Vassar College

J.W. Seligman &amp; Company (S,B)

Wake Forest University

Madison Advisors (S,B)  
 Century Capital (S,B)  
 Montag & Caldwell (S,B)  
 Lexington Management Corp. (S,B)  
 First Union National Bank (S,B)  
 Sterling Management Inc. (S,B)

Washburn College

Hartford National Bank &amp; Trust (S,B)

Washington State University

Smith Barney, Harris Upham & Co. (S,B)  
 Old National Bank of Washington (B)

Washington University

Centerre Trust Company (S,B)  
 Mercantile Trust Company (S,B)  
 Boatmen's National Bank (S,B)  
 Scudder, Stevens & Clark (B)  
 Thorndike, Doran, Paine & Lewis (S)

Wellesley College

Internally Managed  
 Boston Company (S,B)

Wells College

Bank of New York (S,B)

Wentworth Institute of Technology

Standish, Ayer, Wood Inc. (S,B)

Wesleyan University

Lynch & Mayers (S)  
 Haleyon Investments (S)  
 Brundage, Story & Rose (S)  
 Cumberland Partners (S)  
 Invesco Capital Management (S)  
 Scudder, Stevens & Clark (B)

Western Michigan University Fdn.

Stein, Roe, Farnham (S,B)  
 Michigan National Bank (B)

Wheaton College

Bank of New England (S,B)  
 Stein Roe & Farnham (S)

Whitman College

Internally Managed

Willamette University

U.S. National Bank of Oregon (S,B)  
 Dodge & Cox (S,B)

InstitutionInvestment Managers

Wittenberg University

David L. Babson (S,B)

Worcester Polytechnic Institute

Vilas Fischer Association (S,B)  
Shawmut Worcester County Bank (B)

Yale University

Endowment Management & Research (S,B)  
Miller, Anderson & Sherrerd (S)  
Fischer, Francis, Trees & Watts (B)  
Wells Fargo (S)  
Connecticut Bank & Trust (S,B)  
Lord Abbott (S)

NOTE 1: Internally managed institutions have 80 percent or more of total assets managed internally.

NOTE 2: Institutions which manage at least 50% of total assets internally, but not more than 80% internally.



EXHIBIT VIINDEX OF ENDOWMENT CUSTODIANS (1)

| <u>Institution</u>            | <u>Custodian</u>                                              |
|-------------------------------|---------------------------------------------------------------|
| Academy of the New Church     | Industrial Valley Bank & Trust                                |
| Agnes Scott College           | Trust Company of Georgia                                      |
| Alfred University             | U.S. Trust, Lincoln First Bank                                |
| Allegheny College             | First National Bank-Pennsylvania<br>Mellon Bank               |
| Alma College                  | Depository Trust Company                                      |
| American University of Beirut | Chemical Bank                                                 |
| Amherst College               | Chase Manhattan Bank<br>U.S. Trust Company                    |
| Arizona State University      | Northern Trust Company of Arizona                             |
| Auburn University             | First Alabama Bank of Montgomery<br>American Security Company |
| Babson College                | Brown Brothers Harriman                                       |
| Baldwin-Wallace College       | AmeriTrust Company                                            |
| Bates College                 | Depositors Trust Company                                      |
| Baylor College of Medicine    | Bank of the Southwest<br>Baptist Foundation of Texas          |
| Baylor University             | Citizens National Bank<br>Baptist Foundation of Texas         |
| Berea College                 | First Kentucky Trust-Louisville<br>Harris Trust               |
| Berry College                 | Trust Company of Georgia                                      |
| Boston University             | Boston Safe Deposit & Trust Company<br>Malden Trust Company   |
| Brandeis University           | First National Bank of Boston                                 |
| Brown University              | RIHT Corporation, Fleet Financial                             |
| Bryant College                | RIHT Corporation                                              |
| Bryn Mawr College             | J & W Seligman<br>Fiduciary Trust<br>Neuberger & Berman       |
| Bucknell University           | Morgan Guaranty Trust                                         |

|                                      |                                                                                         |
|--------------------------------------|-----------------------------------------------------------------------------------------|
| California Institute of Technology   | Security Pacific National Bank                                                          |
| Canisius College                     | M & T Bank, Buffalo Savings Bank<br>Philadelphia National Bank                          |
| Carleton College                     | Northwestern National Bank of<br>Minneapolis<br>Brown Brothers Harriman                 |
| Carnegie-Mellon University           | Mellon Bank                                                                             |
| Case Western Reserve University      | AmeriTrust<br>Central National Bank<br>National City Bank                               |
| Chapman College                      | Internal                                                                                |
| Claremont McKenna College            | Security Pacific National Bank                                                          |
| Clark University                     | Guaranty Bank & Trust                                                                   |
| Clarkson College of Technology       | Lincoln First Bank<br>Marine Midland Bank                                               |
| Colby College                        | Depositors Trust Company                                                                |
| Colgate University                   | Chemical Bank<br>Bessemer Trust<br>First National Bank<br>Bank of New York<br>Cititrust |
| College of William & Mary            | United Virginia Bank                                                                    |
| College of Wooster                   | Bank One Trust Company of Ohio<br>Fiduciary Trust Company of New York                   |
| Colorado College                     | First National Bank of Colorado Springs                                                 |
| Columbia University                  | Manufacturers Hanover Bank<br>Chemical Bank                                             |
| Columbia University-Teachers College | Morgan Guaranty Trust Company<br>Connecticut Bank & Trust                               |
| Connecticut College                  | Hartford National Bank & Trust                                                          |
| Cooper Union                         | United States Trust                                                                     |
| Cornell College                      | Merchants National Bank                                                                 |
| Cornell University                   | Morgan Guaranty Trust Company                                                           |
| Dartmouth College                    | Chase Manhattan Bank                                                                    |
| Davidson College                     | NCNB<br>Northwestern Bank<br>Wachovia Bank                                              |

|                                                           |                                                                                     |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------|
| Denison University                                        | AmeriTrust Company<br>Huntington National Bank<br>National City Bank                |
| Dickinson College                                         | American Bank & Trust Company                                                       |
| Doane College                                             | Hartford National Bank<br>National Bank of Commerce                                 |
| Drake University                                          | Harris Trust & Savings Bank<br>Iowa Des Moines National Bank                        |
| Drew University                                           | Irving Trust Company                                                                |
| Duke University                                           | Morgan Guaranty Trust Company                                                       |
| Earlham College                                           | Second National Bank Richmond, Ind.<br>First National Bank Richmond, Ind.           |
| Eastern Michigan University                               | Pioneer Fund, Inc.                                                                  |
| Endowment Association of the<br>College of William & Mary | United Virginia Bank                                                                |
| Franklin and Marshall College                             | Hamilton Bank<br>Mercantile Safe Deposit & Trust Co.                                |
| Furman University                                         | South Carolina National Bank                                                        |
| George Washington University                              | Riggs National Bank                                                                 |
| Georgetown University                                     | Chase Manhattan Bank<br>Riggs National Bank<br>American Security & Trust            |
| Grinnell College                                          | Bankers Trust                                                                       |
| Hamilton College                                          | Irving Trust Company<br>Bank of New York                                            |
| Hampton Institute                                         | U.S. Trust Company                                                                  |
| Harvard University                                        | State Street Bank & Trust Company                                                   |
| Haverford College                                         | U.S. Trust Company<br>Fidelity Bank                                                 |
| Hendrix College                                           | Commercial National Bank                                                            |
| Hope College                                              | Old Kent Bank & Trust<br>First Michigan Bank & Trust                                |
| Howard University                                         | Riggs National Bank                                                                 |
| Indiana University                                        | Indiana National Bank<br>American Fletcher National Bank<br>Merchants National Bank |

|                                                           |                                                                                                                             |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Johns Hopkins University                                  | Fiduciary Trust Company of New York<br>First National Bank of Maryland                                                      |
| Kalamazoo College                                         | First National Bank of Boston<br>State Street Bank & Trust Company                                                          |
| Kansas University Endowment<br>Association-Univ of Kansas | Security National Bank                                                                                                      |
| Kenyon College                                            | AmeriTrust Company                                                                                                          |
| Knox College                                              | Northern Trust Company                                                                                                      |
| Lafayette College                                         | Easton National Bank & Trust                                                                                                |
| Lawrence University of Wisconsin                          | First Wisconsin Trust Company<br>First National Bank of Appleton<br>Windsor Securities Inc.                                 |
| Lehigh University                                         | Wilmington Trust Company<br>Morgan Guaranty Trust Company<br>State Street                                                   |
| Loyola University of Chicago                              | Continental Illinois National Bank<br>& Trust Company of Chicago<br>First National Bank of Chicago<br>Chicago Title & Trust |
| McGill University                                         | Royal Trust Company<br>Bank of Montreal Trust Company                                                                       |
| Marquette University                                      | Marshall & Ilsley Bank                                                                                                      |
| Massachusetts Institute of Technology                     | First National Bank of Boston                                                                                               |
| Medical College of Pennsylvania                           | Cooke & Bieler                                                                                                              |
| Mercer University                                         | Internal                                                                                                                    |
| Michigan State University                                 | Detroit Bank & Trust Company<br>Ann Arbor Trust                                                                             |
| Middlebury College                                        | Chase Manhattan Bank<br>Bank of New York                                                                                    |
| Monmouth College                                          | Central Jersey Bank & Trust                                                                                                 |
| Moravian College                                          | First Valley Bank<br>McGlinn Investments                                                                                    |
| Mount Holyoke College                                     | Scudder, Stevens & Clark                                                                                                    |
| Muhlenberg College                                        | First National Bank of Allentown                                                                                            |
| Newberry College                                          | South Carolina National Trust<br>First National Bank & Trust                                                                |

|                                                 |                                                                             |
|-------------------------------------------------|-----------------------------------------------------------------------------|
| New York University                             | U.S. Trust<br>Bank of New York                                              |
| North Carolina State University                 | Wachovia Bank & Trust                                                       |
| Northwestern University                         | State National Bank, Evanston<br>Midwest Securities Trust Company           |
| Norwich University                              | Morgan Guaranty                                                             |
| Oberlin College                                 | National City Bank (Cleveland)                                              |
| Occidental College                              | Security Pacific National Bank                                              |
| Oceans County College                           | Butcher & Singer                                                            |
| Ohio Northern University                        | Metropolitan Bank of Lima<br>National City Bank of Cleveland                |
| Ohio State University                           | BancOhio National Bank<br>Huntington National Bank<br>Neuberger Mutual Fund |
| Ohio University                                 | Bank One Trust NA of Columbus                                               |
| Ohio Wesleyan University                        | Morgan Guaranty                                                             |
| Oregon State Board of Higher Educ.              | First Interstate Bank                                                       |
| Otterbein College                               | BancOhio<br>Robinson Humphrey                                               |
| Pennsylvania State University                   | Mellon Bank                                                                 |
| Philadelphia College of Pharmacy<br>and Science | Merrill Lynch                                                               |
| Philadelphia College of Textiles<br>and Science | Girard Bank<br>Philadelphia National Bank                                   |
| Pomona College                                  | Bank of America                                                             |
| Pratt Institute                                 | U.S. Trust<br>Neuberger & Berman<br>William Witter                          |
| Princeton University                            | U.S. Trust Company of New York                                              |
| Radcliffe College                               | Fiduciary Trust                                                             |
| Reed College                                    | First Interstate Bank                                                       |
| Rensselaer Polytechnic Institute                | Harris Bank<br>Bankers Trust<br>Key Bank NA                                 |
| Rhode Island School of Design                   | Rhode Island Hospital Trust Nat'l Bank                                      |
| Rice University                                 | Texas Commerce Bank                                                         |

|                                   |                                                                                                                                                 |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Rochester Institute of Technology | Lincoln First Bank<br>Security Trust Company                                                                                                    |
| Rockefeller University            | Chase Manhattan Bank                                                                                                                            |
| Rockhurst College                 | Internal                                                                                                                                        |
| Rollins College                   | Scudder, Stevens & Clark<br>Barnett Bank of Winter Park<br>Trust Company of Florida<br>ComBank of Winter Park<br>First National Bank of Chicago |
| Russell Sage College              | State Bank of Albany<br>Marine Midland Bank                                                                                                     |
| Rutgers, The State University     | Chemical Bank of New York                                                                                                                       |
| St. Louis University              | Centerre Trust Company                                                                                                                          |
| St. Mary's College                | American National Bank<br>First Source Bank<br>St. Joseph Bank<br>National Bank                                                                 |
| St. Norbert College               | Citizens Bank & Sheboygan<br>Harris Trust & Savings Bank, Chicago<br>Kellogg Citizens                                                           |
| Simmons College                   | Bank of New England                                                                                                                             |
| Skidmore College                  | Shearson American Express<br>Value Line Asset Management<br>Lincoln First Bank<br>Thomson McKinnon                                              |
| Smith College                     | Morgan Guaranty Trust Company<br>Bank of New York<br>Kidder Peabody<br>U.S. Trust Company                                                       |
| Southern Methodist University     | First National Bank-Dallas                                                                                                                      |
| Southwestern at Memphis           | Union Planters<br>National Bank of Commerce<br>First National Bank, Mobil<br>First Tennessee Bank                                               |
| Southwestern University           | First City National Bank                                                                                                                        |
| Spelman College                   | Chase Manhattan Bank                                                                                                                            |
| Stanford University               | Wells Fargo Bank<br>Chase Manhattan Bank                                                                                                        |



State University of New York

Sweet Briar College

Syracuse University

Temple University

Thomas Jefferson University

Trinity College (Conn.)

Trinity College (Wash., D.C.)

Tulane University

University of Akron

University of Alabama System

University of Arizona

University of Arkansas

University of Chicago

University of Cincinnati

University of Connecticut

University of Dayton

University of Delaware

University of Denver

University of Evansville

University of Houston System

University of Iowa Foundation

University of Maine

Manufacturers & Traders Trust Co.  
Marine Midland Bank

United Virginia Bank

Key Bank of Central New York

Girard Bank

First Pennsylvania Bank N.A.

Hartford National Bank & Trust Co.

American Security Bank

Hibernia National Bank  
First National Bank of Commerce

First National Bank of Akron  
BancOhio  
National City Bank of Akron

First National Bank of Tuscaloosa

First Interstate Bank

Stephens, Inc.  
First National Bank-Little Rock

Morgan Guaranty

First Third Bank-Cincinnati

State Treasurer  
Connecticut Bank & Trust

Third National Bank & Trust Company

Wilmington Trust Company  
Bank of Delaware

United Bank of Denver  
Intrawest Bank of Denver  
Colorado National Bank  
Mountain States Bank  
Central Bank & Trust

Internal

Texas Commerce Bank

Shawmut Bank

Merrill Trust Company  
Maine National Bank

|                                           |                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------|
| University of Maryland                    | Union Trust Company of Maryland<br>Treasurer of State                   |
| University of Massachusetts               | Internal                                                                |
| University of Miami                       | Security Trust Company<br>Southeast Bank                                |
| University of Michigan                    | National Bank of Detroit<br>Detroit Bank & Trust Company                |
| University of Mississippi                 | Deposit Guaranty National Bank, Jackson<br>First National Bank-Jackson  |
| University of Missouri                    | The Boatmen's National Bank<br>State of Missouri                        |
| University of Nebraska                    | Omaha National Bank                                                     |
| University of Nevada System               | First Interstate Bank<br>Security National Bank<br>Nevada National Bank |
| University of North Carolina              | Wachovia Bank & Trust<br>NCNB                                           |
| University of Notre Dame                  | Chicago Title<br>Chase Manhattan Bank                                   |
| University of Pennsylvania                | Fidelity Bank                                                           |
| University of Pittsburgh                  | Mellon Bank<br>Pittsburgh National Bank                                 |
| University of Puget Sound                 | Puget Sound National Bank                                               |
| University of Richmond                    | Central Fidelity Bank<br>First & Merchants National Bank                |
| University of Santa Clara                 | Barclays Bank of California                                             |
| University of Scranton                    | Northeastern Bank                                                       |
| University of Southern California         | First Interstate Bank of California                                     |
| University of Tampa                       | Exchange Bank & Trust Company                                           |
| University of Tennessee at<br>Chattanooga | American National Bank<br>First Tennessee                               |
| University of Tennessee at<br>Knoxville   | United American Bank, Knoxville                                         |
| University of Texas System                | Internal, State Treasurer                                               |

|                                   |                                                                                                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| University of Tulsa               | Bank of Oklahoma<br>First National Bank of Tulsa                                                                            |
| University of Utah                | First Security Bank                                                                                                         |
| University of Vermont             | First National Bank of Boston                                                                                               |
| University of Virginia            | Harris Bank & Trust<br>Fiduciary Trust Company of New York<br>United Virginia Bank<br>American National Bank of Chattanooga |
| University of Wisconsin System    | Treasurer of the State<br>Morgan Guaranty Trust                                                                             |
| Vanderbilt University             | First American Bank<br>Chase Manhattan Bank<br>Trust Company of Georgia                                                     |
| Vassar College                    | J & W Seligman & Company                                                                                                    |
| Wake Forest University            | Wachovia Bank & Trust Company<br>First Union National Bank                                                                  |
| Washburn College                  | Hartford National Bank & Trust Co.                                                                                          |
| Washington State Univ             | Smith Barney Harris Upham & Company<br>Old National Bank of Washington                                                      |
| Washington University             | St. Louis Union Trust Company<br>Mercantile Trust Company<br>Boatmen's National Bank<br>First National Bank DTC             |
| Wellesley College                 | State Street Bank & Trust                                                                                                   |
| Wells College                     | Bank of New York                                                                                                            |
| Wentworth Institute of Technology | Boston Safe Deposit & Trust Company                                                                                         |
| Wesleyan University               | U.S. Trust Company                                                                                                          |
| Western Michigan University       | Michigan National Bank                                                                                                      |
| Wheaton College                   | Bank of New England                                                                                                         |
| Whitman College                   | Internal                                                                                                                    |
| Willamette College                | U.S. Bank of Oregon                                                                                                         |
| Wittenberg University             | Internal                                                                                                                    |
| Worcester Polytechnic Institute   | Mechanics Bank<br>Shawmut Worcester County Bank<br>Guaranty Bank & Trust                                                    |

Yale University

Chemical Bank  
Connecticut Bank & Trust

NOTE 1: Internal means an institution serves as custodian for at least 80 percent of its assets.

## APPENDIX I

EXPLANATION OF METHOD USED FOR MEASURINGPERFORMANCE OF PORTFOLIO MANAGER

The choice between the geometric average return (average total return) figure and the internal rate of return figure depends on what it is one wishes to measure: the skill of the individual or committee which actually manages the investment of the endowment fund, or the success of the investment management coupled with the decision or policy that governs withdrawal of funds from the endowment (and contribution of funds to the endowment). Both figures are "correct," but the internal rate of return should not be used for judging portfolio management, nor should the geometric average not be used for judging the overall results of portfolio management and decisions on when to add the withdraw funds.

For most endowment funds the geometric average is probably the more important figure. This is particularly true if additions of funds to an endowment and withdrawals of funds do not reflect any judgment skill, but simply follow a policy of adding funds when contributions are received and withdrawing income either when the dividends and interest are received or at predetermined dates. The reason for looking at the internal rate of return in addition to the geometric average is to determine how well the investor is timing additions and withdrawals.

College officials often object to the use of the geometric average, protesting that: "This average assumes that income is reinvested, and we don't reinvest income." It is quite true that they do not reinvest income, but if what is to be determined is the quality of investment performance being achieved by the manager of the endowment fund, then the performance record of the manager should not be penalized by unfortunate timing of withdrawals over which the manager has no control.

## APPENDIX II

PERFORMANCE OF POOLED INVESTMENT FUNDSEXPLANATION OF COMPUTATIONS

The computations required to create the tabular and performance data used in the comparative performance of pooled investment funds are accomplished by a computer program entitled FUNDPER. The program FUNDPER draws on the basic data file compiled for each individual investment pool. Data contain the endowment pool's year-end unit value (at market) and the dollar value per unit of income received for the year. Drawing on the basic file, FUNDPER first creates a yearly chart of tabulated data as shown below; for any number of consecutive years within the limits of the basic data file it calculates various performance statistics.

## STATISTICAL SUMMARY SHEET

INSTITUTIONAL CODE NAME - SP500

| COL 1<br>YEAR                   | COL 2<br>BASE | COL 3<br>UNIT | COL 4<br>APPRE | COL 5<br>INCOME | COL 6<br>YLD<br>PCT | COL 7<br>GRO<br>PCT | COL 8<br>TOT RET<br>PCT |
|---------------------------------|---------------|---------------|----------------|-----------------|---------------------|---------------------|-------------------------|
| 1977                            | 100           | 100.48        |                |                 |                     |                     |                         |
| 1978                            | 95.07         | 95.53         | -4.95          | 4.91            | 4.89                | -4.93               | -0.04                   |
| 1979                            | 102.42        | 102.91        | 7.38           | 5.34            | 5.59                | 7.73                | 13.32                   |
| 1980                            | 113.69        | 114.24        | 11.33          | 5.94            | 5.77                | 11.01               | 16.78                   |
| 1981                            | 130.61        | 131.24        | 17             | 6.39            | 5.59                | 14.88               | 20.47                   |
| 1982                            | 109.09        | 109.61        | -21.63         | 6.81            | 5.19                | -16.48              | -11.29                  |
| ARITH AVGS 5 YRS ENDING IN 1982 |               |               |                |                 | 5.41                | 2.44                | 7.85                    |
| GEOM AVGS                       |               |               |                |                 | 5.41                | 1.75                | 7.17                    |
| APPRECIATION                    |               |               |                |                 |                     | 9.09 PERCENT        |                         |
| CORRESPONDING AVG ROR           |               |               |                |                 |                     | 1.75 PERCENT        |                         |
| APPREC WITH INC REINV           |               |               |                |                 |                     | 41.52 PERCENT       |                         |
| CORRESPONDING AVG ROR(AV T/R)   |               |               |                |                 |                     | 7.19 PERCENT        |                         |

Exhibit A contains examples of the mathematics used by FUNDPER for that portion of the tabulated data which is computed. The balance of the tabulated data is reproduced from the basic data file.

An explanation of the columns for 1982 in the above chart is as follows:

Col. 1 Fiscal Year: July 1/June 30.

Col. 2 Base: This gives the first year the unit value is available an index of 100 and adjusts the succeeding unit values accordingly. In the above example the first year the S&P 500 unit value figures were available was the fiscal year ending 6/30/77.



Col. 3 Unit Value: Supplied by participating institution.

Col. 4 Appreciation: Appreciation is computed by subtracting the 1981 unit value from the 1982 unit value.

Col. 5 Income Per Unit: Supplied by participating institution.

Col. 6 Yield Percent: Yield percent is computed by taking the 1982 income per unit, dividing it by the 1981 unit value, and multiplying by 100.

Col. 7 Growth Percent: Growth percent is computed by taking the 1982 appreciation, dividing it by the 1981 unit value, and multiplying by 100.

Col. 8 Total Return Percent: Total return percent is computed by adding the 1982 appreciation to 1982 income, then dividing by the 1981 unit value, and multiplying by 100.

Exhibit B contains examples of the mathematics used by FUNDPER in determining arithmetic and geometric averages of yield, growth, and total return for the period specified. They are computed as follows:

1. Arithmetic Average 5 Years Ending 1982: Add either the 5 yearly yield, growth, or total return percentages and divide by 5.
2. Geometric Average 5 Years Ending 1982: Add one to each of the 5 yearly yield, growth, or total return percentages expressed as a decimal, multiply these figures, then take the fifth root of that value, subtract 1, and multiply by 100.

Exhibit C contains examples of the mathematics used by FUNDPER in making comparative performance computations. Using the five-year period 1977-82 as an example, the four comparative performance percentages are computed as follows:

1. Total Percent Appreciation: The total percent appreciation is computed by dividing the 1982 unit value by the 1977 unit value, subtracting 1, and multiplying by 100.
2. Corresponding Annual Geometric Average Growth Rate: The corresponding annual geometric growth rate is computed by taking the fifth root of the 1982 unit value divided by the 1977 unit value, subtracting 1, and multiplying by 100.
3. Total Percent Appreciation with Income Reinvested: The total percent appreciation with income reinvested is calculated as follows:
  - a. Determining the number of units that could have been purchased with income of one unit for the year 1977-78, using the average of the 1977 and 1978 unit values as the price of a new unit.
  - b. Adding the new units so purchased to the original unit held.

- c. Determining the income on the new total units held for the next year 1978-79 calculating the number of units that could have been purchased with income in that year, again using the average beginning and end of year unit values as the price of new units, and so on to the end of the five years, i.e., the end of 1982.
  - d. Calculating the total value of the units held as of 1982 multiplied by the 1982 unit value, and dividing this by the 1977 unit value, subtracting 1, and multiplying by 100.
4. Corresponding Annual Geometric Average Growth Rate: The corresponding annual geometric average growth rate (with income reinvested) is computed by adding 1 to the total of the units purchased during each of the five years, multiplied by the unit value at the end of 1982 divided by the 1977 unit value, taking the fifth root, subtracting 1, and multiplying by 100.

EXHIBIT A (Appendix II)Tabulated Data Computations

## Col. 4      Appreciation

$$\begin{aligned} & 1982 \text{ Unit Value} - 1981 \text{ Unit Value} \\ & 109.61 - 131.24 = -21.63 \end{aligned}$$

## Col. 6      Yield Percent

$$\begin{aligned} & (1982 \text{ Income}/1981 \text{ Unit Value}) \times 100 \\ & (6.81/131.24) \times 100 = 5.19\% \end{aligned}$$

## Col. 7      Growth Percentage

$$\begin{aligned} & (1982 \text{ Appreciation}/1981 \text{ Unit Value}) \times 100 \\ & (-21.63/131.24) \times 100 = -16.48\% \end{aligned}$$

## Col. 8      Total Return Percent

$$\begin{aligned} & (1982 \text{ Appreciation} + 1981 \text{ Income})/1981 \text{ Unit Value} \times 100 \\ & [(-21.63 + 6.81)/131.24] \times 100 = -11.29\% \end{aligned}$$

Exhibit B (Appendix II)Arithmetic and Geometric Averages

## Arithmetic Average Total Return Percentage\*

$$\begin{aligned} & (\text{Total Return Percentage for } 1977-78 + 1978-79 + 1979-80 + \\ & 1980-81 + 1981-82)/5 \end{aligned}$$

$$\frac{(-.04) + 13.32 + 16.78 + 20.47 + (-11.29)}{5} = 7.85\% \text{ for 5 years ending June 30, 1982}$$

## Geometric Average Total Return Percentage\*

$$\left( \frac{\text{Total Return for } (1977-78 + 1) \times (1978-79 + 1) \times (1979-80 + 1) \times (1980-81 + 1) \times (1981-82 + 1)}{(1/5) - 1} \right) \times 100$$

$$\left( \frac{(-.0004 + 1) \times (.1332 + 1) \times (.1678 + 1) \times (.2047 + 1) \times (-.1129 + 1)}{(1/5) - 1} \right) \times 100 = 7.17\%$$

\*NOTE: Average yield and growth percentages are calculated in the same manner.

## EXHIBIT C (Appendix II)

Comparative Performance Measurement Computations1. Total Return Appreciation

$$\left( \frac{(1982 \text{ Unit Value})}{(1977 \text{ Unit Value})} - 1 \right) \times 100$$

$$\left( \frac{(109.61)}{(100.48)} - 1 \right) \times 100 = 9.09\%$$

2. Corresponding Annual Geometric Average Growth Rate Percentage

$$\left( \frac{(1982 \text{ Unit Value})}{(1977 \text{ Unit Value})} \right)^{(1/5)} - 1 \quad \times \quad 100$$

$$\left( \frac{(109.61)}{(100.48)} \right)^{(1/5)} - 1 \quad \times \quad 100 = 1.75\%$$

3. Total Percent Appreciation with Income Reinvested

$$\frac{(1978 \text{ Income})}{\text{Average of 1977 and 1978 Unit Values}} = \text{Units Purchased with 1978 Income}$$

$$\frac{4.91}{(100.48 + 95.53)/2} = .05010 \text{ Units}$$

$$\frac{(1 + \text{Units Purchased with 1978 Income}) \times 1979 \text{ Income Per Unit}}{\text{Average of 1978 and 1979 Unit Values}} = \text{Units Purchased with 1979 Income}$$

$$\frac{(1 + .05010) \times 5.34}{(95.53 + 102.91)/2} = .05652$$

## Exhibit C (Appendix II) -- Continued

1 + Units Purchased with 1978 + 1979 Income) X 1980 Income Per Unit = Units Purchased with 1980 Income  
Average of 1979 and 1980 Unit Values

$$\frac{(1 + .05010 + .05652) \times 5.94}{(102.91 + 114.24)/2} = .06054 \text{ Units}$$

1 + Units Purchased with 1978 + 1979 + 1980 Income) X 1981 Income Per Unit = Units Purchased with 1981 Income  
Average of 1980 and 1981 Unit Values

$$\frac{(1 + .05010 + .05652 + .06054) \times 6.39}{(114.24 + 131.24)/2} = .06076 \text{ Units}$$

1 + Units Purchased with 1978 + 1979 + 1980 + 1981 Income) X 1982 Income Per Unit = Units Purchased with 1982 Income  
Average of 1981 and 1982 Unit Value

$$\frac{(1 + .05010 + .05652 + .06054 + .06076) \times 6.81}{(131.24 + 109.61)/2} = .06944 \text{ Units}$$

$$\left[ \frac{(1 + \text{Units Purchased with 1978 + 1979 + 1980 + 1981 + 1982 Income}) \times 1982 \text{ Unit Value}}{1977 \text{ Unit Value}} - 1 \right] \times 100 = \text{Appreciation with Income Reinvested}$$

$$\left( \frac{(1 \times .05010 + .05652 + .06054 + .06076 + .06944) \times 109.61}{100.48} - 1 \right) \times 100 = 41.52\% \text{ Appreciation with Income Reinvested}$$

## 4. Corresponding Annual Geometric Growth Rate

$$\left[ \frac{(1 + \text{Total of Income Units Purchased from 1978 thru 1982}) \times 1982 \text{ Unit Value}}{1977 \text{ Unit Value}} - 1 \right] \times 100 = \text{Av T/R}$$

$$\left( \frac{(1 + .05010 + .05652 + .06054 + .06076 + .06944) \times 109.61}{100.48} - 1 \right) \times 100 = 7.19\% \text{ Corresponding Average ROR (AV T/R)}$$

## APPENDIX III

NACUBO  
INVESTMENT QUESTIONNAIRE

Terms and Definitions

Responses to the questionnaire should be prepared with reference to terms and definitions contained in the following glossary:

1. Endowment and Other Funds. Endowment and other funds held on a permanent or semi-permanent basis are of two kinds, "endowment" and "quasi-endowment," which are defined as follows (Ref: College and University Business Administration):
  - a. Endowment funds are those for which donors or other external agencies have stipulated under the terms of the gift instrument creating the fund that the principal of the fund is not expendable—that is, it is to remain inviolate in perpetuity and is to be invested for the purpose of producing present and future income, which may be expended or added to principal.
  - b. Term endowment funds are like endowment funds, except that all or part of the principal may be utilized after a stated period of time or upon the occurrence of a certain event.
  - c. Quasi-endowment funds (funds functioning as endowment) are funds that the governing board of the institution, rather than a donor or other external agency, has determined are to be retained and invested. Since these funds are not required by the donor to be retained and invested, the principal as well as the income may be totally utilized at the discretion of the governing board, subject to any donor-imposed restrictions on use.
  - d. Life income funds are assets, the income of which does not flow through to the institution during the lifetime of the donor or beneficiary, yet the principal of which has been designated to the institution as a remainderman.

NOTE: The above definitions should be kept clearly in mind in answering the questionnaire. It might be helpful to think of endowment funds as true endowment funds as distinguished from quasi-endowment funds which really have no characteristics of true endowment funds except they are retained and invested on a long-term basis. In particular, the terms restricted and unrestricted should not be used to distinguish between an endowment fund and a quasi-endowment fund. These terms are more applicable to the use of the income and/or principal of the funds. For example, a true endowment fund may be unrestricted as to the use of income so that such income may be used for any institutional purpose, while another endowment fund may have its income restricted to a particular use such as the purchase of library books. On the other hand one quasi-endowment fund may be completely unrestricted both as to the use of principal and income, while another quasi-endowment fund may be restricted in that its principal and income if expended at all must be expended for a designated purpose, as for example payment of faculty salaries.



2. Yield consists of the annual dividends, interest, rent, and other forms of ordinary income expressed as a percentage of the average beginning and ending total market value of investments in the endowment fund pool. Thus, "yield" represents what is ordinarily regarded as income, but for the purposes of the total return concept, since appreciation used for current operating purposes may under some definitions be treated as "income," the more precise definition of "yield" is preferable.
3. Appreciation (Depreciation) means enhancement in value of the investments in the portfolio. This may be either realized or unrealized. Unrealized appreciation can always be converted into realized if necessary. Correspondingly depreciation means a shrinkage in market value, again realized or unrealized. In the Yale terminology the word "gain" is used instead of appreciation. This has the advantage of being a shorter word but it also may carry an implication of realizing the appreciation, which is not necessary.
4. Total Return means the total of yield plus appreciation (or minus depreciation) expressed as a percentage of the average beginning and ending market value of the funds for a given year.
5. Utilizable portion of total return is the percentage of the averaged beginning and ending total market value of an institution's total return funds which will be used for current operating purposes. In a given year the total return rate might be 8%, 10%, 12%, or something else, but in most cases only a portion of this will be used for current operations and designated the utilizable portion of total return.
6. Unit value is determined by a periodic evaluation of the total market value of pooled fund investments divided by the number of units in the pool.
7. Unit yield is the amount of annual dollar yield per unit in the pool, traditionally dividends, interest, rent, etc., exclusive of any realized or unrealized appreciation.
8. Historical book value is interpreted to mean the value of endowment funds exclusive of the investment gains and losses which have been added to such funds. Thus, historical book includes not only the original gift or bequest which establishes a fund, but also any subsequent additional gifts or bequests, income added to the principal of the fund, increases in cash surrender value of life insurance policies, and most transfers in or out of the Fund.
9. Equities are any common stock, convertible preferred stock, or convertible debenture.
10. Senior Securities are any non-convertible preferred stock or non-convertible debenture whose maturity is one year or greater.
11. Cash Equivalent is any asset whose maturity is under one year.

12. Current Funds Revenues. Current funds revenues include (1) all unrestricted gifts, grants, and other resources earned during the reporting period and (2) restricted resources to the extent that such funds were expended. Current funds revenues do not include restricted current funds received but not expended or resources that are restricted by external persons or agencies to other than current funds.
13. Current Funds Expenditures. Current funds expenditures represent the costs incurred for goods and services used in the conduct of the institution's operations. They include the acquisition cost of capital assets, such as equipment and library books, to the extent current funds are budgeted for and used by operating departments for such purposes.

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